No. _____ (1)

Supreme Court, U.S.
FILED

IN THE 98 62 JUN 29 1998

Supreme Court of the United States OFFICE OF THE CLERK

OCTOBER TERM, 1997

ETHICON, INC. and INBAE YOON, M.D.,

Petitioners,

—v.—

UNITED STATES SURGICAL CORPORATION
and YOUNG JAE CHOI,

Respondents.

ON PETITION FOR A WRIT OF CERTIORARI TO THE
UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

PETITION FOR A WRIT OF CERTIORARI

David F. Dobbins
Counsel of Record
Gregory L. Diskant
Thomas W. Pippert
Eugene M. Gelernter
PATTERSON, BELKNAP, WEBB
& TYLER LLP
1133 Avenue of the Americas
New York, New York 10036
(212) 336-2000

Attorneys for Petitioner

Of Counsel:

Geoffrey C. Hazard, Jr.
200 West Willow Grove
Philadelphia, PA 19118

Theodore B. Van Itallie, Jr.
Harman Avery Grossman
JOHNSON & JOHNSON
One Johnson & Johnson Plaza
New Brunswick, NJ 08933

176 pp

QUESTIONS PRESENTED

1. Should a special rule, separate from and contrary to the Federal Rule of Civil Procedure that governs all other civil actions in federal district courts, be created for joinder of co-owners in patent cases, where that special rule requires dismissal if a co-owner who already is present as a defendant refuses to join as a plaintiff?

2. May one co-owner of a patent destroy the right of another co-owner to seek damages for past infringement by refusing to join as a plaintiff in an infringement action?

PARTIES TO THE PROCEEDING

The parties to the proceeding in the court whose judgment is sought to be reviewed are the parties named in the caption.

Ethicon, Inc. is a wholly-owned subsidiary of Johnson & Johnson.

Table of Contents

QUESTIONS PRESENTED i

PARTIES TO THE PROCEEDING ii

TABLE OF CONTENTS iii

TABLE OF AUTHORITIES vi

PRELIMINARY STATEMENT 1

OPINIONS BELOW 1

JURISDICTION 1

RULES AND STATUTE INVOLVED 1

STATEMENT OF THE CASE 4

1. The Nature of the Case and the '773 Patent 4

2. Ethicon's Claim for Accrued Damages 5

3. The Choi/U.S. Surgical License Agreement 5

4. Mr. Choi's Voluntary Joinder in the Action 6

5. The District Court's Orders Correcting Inventorship and Dismissing the Complaint 6

6. The Federal Circuit's Decision 7

7. The Dissenting Opinion in the Federal Circuit 9

REASONS FOR GRANTING THE WRIT 10

I. THIS COURT SHOULD GRANT CERTIORARI TO CONFIRM THAT JOINDER OF PATENT CO-OWNERS IS GOVERNED BY RULE 19, RATHER THAN BY PRINCIPLES OF "SUBSTANTIVE PATENT LAW" 11

II. DISMISSING AN ACTION FOR NON-JOINDER OF A PARTY WHO ALREADY IS PRESENT CONFLICTS WITH DECISIONS OF THIS COURT AND ALL OF THE REGIONAL CIRCUITS 18

III. THIS COURT SHOULD GRANT CERTIORARI TO CONFIRM THAT, AS A MATTER OF SUBSTANTIVE PATENT LAW, ONE PATENT CO-OWNER

CANNOT DESTROY THE OTHERS' RIGHT TO DAMAGES FOR PAST INFRINGEMENT 21

IV. THE DECISION BELOW CREATES A NEW DEFENSE TO DAMAGE CLAIMS IN INFRINGEMENT ACTIONS, AND UNDERMINES THE STRONG PUBLIC POLICY IN ENFORCING VALID PATENTS 25

CONCLUSION 29

Table of Authorities

Cases

Arachanid, Inc. v. Merit Industries, Inc., 939 F.2d 1544 (Fed. Cir. 1991) 23
Bank of America Nat'l Trust and Savings Ass'n v. Hotel Rittenhouse Assoc., 844 F.2d 1050 (3d Cir. 1988) 19
Burroughs Wellcome v. Barr Labs. Inc., 40 F.3d 1223 (Fed. Cir. 1994) 24
Cardinal Chem. Co. v. Morton Int'l, Inc., 508 U.S. 83 (1993) 29
Catanzaro v. International Telephone & Telegraph Corp., 378 F. Supp. 203 (D. Del. 1974) ..... *passim*
Challenge Homes, Inc. v. Greater Naples Care Center, Inc., 669 F.2d 667 (11th Cir. 1982) 19
Chem-Tainer Indus., Inc. v. Wilkin, 44 USPQ2d 1114 (C.D. Cal. 1997) 17
Cherokee Nation of Oklahoma v. Babbitt, 117 F.3d 1489 (D.C. Cir. 1997) 19
Cilco, Inc. v. Copeland Intralenses, Inc., 614 F. Supp. 431 (S.D.N.Y. 1985) 24
Confederated Tribes of the Chehalis Indian Reservation v. Lujan, 928 F.2d 1496 (9th Cir. 1991) 19
ConnTech Dev. Co. v. Univ. of Conn. Educ. Prop., Inc., 102 F.3d 677 (2d Cir. 1996) 19
Dynamic Mfg. v. Craze, 46 USPQ2d 1548 (E.D. Va. 1998) 24

Eikel v. States Marine Lines, Inc.,
473 F.2d 959 (5th Cir. 1973) 20
Flight Concepts L.P. v. Boeing Co.,
819 F. Supp. 1535 (D. Kan. 1993) 24
Hall v. Aqua Queen Mgr.,
93 F.3d 1548 (Fed. Cir. 1996) 24
Heidelberg Harris, Inc. v. Joebach,
___ F.3d ___, 1998 U.S. App.
LEXIS 11490, (Fed. Cir. June 2, 1998) 23
Howes v. Medical Components, Inc.,
698 F. Supp. 574 (E.D. Pa. 1988) ..... *passim*
International Business Machines Corp.
v. Conner Peripherals, Inc.,
30 USPQ2d 1315 (N.D. Cal. 1994) 24
Katz v. Lear Siegler, Inc.,
909 F.2d 1459 (Fed. Cir. 1990) 14
Keweenaw Bay Indian Community
v. State of Michigan,
11 F.3d 1341 (6th Cir. 1993) 19
Lalance & Grosjean Mfg. Co. v.
Haberman Mfg. Co., 93 F. 197
(C.C.D.N.Y. 1899) ..... *passim*
Mallinckrodt, Inc. v. Medipart, Inc.,
976 F.2d 700 (Fed. Cir. 1992) 23
Martin v. Wilks, 490 U.S. 755 (1989) 18
Mescalero Apache Tribe v.
State of New Mexico, 131 F.3d 1379
(10th Cir. 1997) 19
Metropolitan Life Ins. Co. v. Ditmore,
729 F.2d 1 (1st Cir. 1984) 19

Michaels of Oregon Co. v. Mil-Tech, Inc.,
38 USPQ2d 1060 (D. Or. 1995) 14, 20, 24
Moore v. Marsh, 74 U.S. (7 Wall.) 515 (1868) ... 8, 15
Oiness v. Walgreen Co., 774 F. Supp. 1277
(D. Colo. 1991) 24
Patlex Corp. v. Quigg, 680 F. Supp. 33
(D.D.C. 1988) 24
Provident Tradesmens Bank & Trust Co.
v. Patterson, 390 U.S. 102 (1968) ..... *passim*
Pulitzer-Polster v. Pulitzer, 784 F.2d 1305
(5th Cir. 1986) 19
Rainbow Rubber Co. v. Holtite Mfg. Co.,
20 F. Supp. 913 (D.Md. 1937) 15
Raines v. Switch Mfg. Corp., 1996 U.S. Dist.
LEXIS 10367 (S.D.N.Y. 1996) 24
Ranger Transportation, Inc. v. Wal-Mart Stores,
903 F.2d 1185 (8th Cir. 1990) 19
Refac Int'l, Ltd. v. Lotus Dev. Corp.,
131 F.R.D. 56 (S.D.N.Y. 1990) 24
Renishaw plc v. Marposs Societa per Azioni,
974 F. Supp. 1056 (E.D. Mich. 1997) 24
Schering Corp. v. Zeneca, Inc.,
104 F.3d 341 (Fed. Cir. 1997) ..... *passim*
Tandem Computers, Inc. v. Yuter,
1992 U.S. Dist. LEXIS 2255
(N.D. Cal. 1992) 24
Tycom Corp. v. Redactron Corp.,
380 F. Supp. 1183 (D.Del. 1974) 15, 20
United States ex rel. Hall v.
Tribal Development Corp.,
100 F.3d 476 (7th Cir. 1996) 19

Valutron, N.V. v. NCR Corp.,
99 F.R.D. 254 (S.D. Ohio 1982) 24
Vaupel Textilmaschinen KG v.
Meccanica Euro Italia SPA,
944 F.2d 870 (Fed. Cir. 1991) 14
Waterman v. Mackenzie, 138 U.S. 252 (1891) 8, 15
Willingham v. Lawton,
555 F.2d 1340 (6th Cir. 1977) . . . . . *passim*
Windsurfing Int'l, Inc. v. Ostermann,
100 F.R.D. 82 (S.D.N.Y. 1983) 15, 20, 24
Wyttenbach v. Atoma Int'l, Inc.,
1998 U.S. Dist. LEXIS 3003
(N.D. Ill. 1998) 24
Zumbro v. Calif. Natural Products, Inc.,
861 F. Supp. 773 (D. Minn. 1994) 24

Rules and Statutes

Rule 1, Fed.R.Civ.P. 1, 10, 11-12
Rule 19, Fed.R.Civ.P. . . . . *passim*
28 U.S.C. § 1254(1) 1
28 U.S.C. § 1295(a)(1) 4
28 U.S.C. § 1338(a) 4
28 U.S.C. § 2072 . . . . . 3, 11

Other Authorities

Dana L. Carlson and James R. Barney,
"Who Owns What's In Your Patent?",
5 *Intellectual Property Today* 11, 26, 28, 29
7 Wright, Miller & Kane, *Federal Practice and*
Procedure, §1614, p. 203 (1986) 17
8 *Chisum on Patents*, 21-284 (1993) 17

PRELIMINARY STATEMENT

Petitioners Ethicon, Inc. ("Ethicon") and InBae Yoon, M.D., respectfully petition for a writ of certiorari to review the judgment of a divided panel of the U.S. Court of Appeals for the Federal Circuit ("Federal Circuit").

OPINIONS BELOW

The district court's decision granting a motion to dismiss the complaint is reported at 954 F. Supp. 51, and is reproduced in the Appendix at 41a. The district court's decision granting a motion to correct inventorship is reported at 937 F. Supp. 1015, and is reproduced in the Appendix at 47a. The Federal Circuit's decision affirming the dismissal of the complaint is reported at 135 F.3d 1456, and is reproduced in the Appendix at 1a. The Federal Circuit decision denying rehearing is unreported and is reproduced in the Appendix at 39a.

JURISDICTION

The judgment of the Federal Circuit was entered on February 3, 1998. Petitioners filed a timely petition for rehearing and suggestion for rehearing *en banc*, which was denied on April 1, 1998. This Court has jurisdiction to review the judgment of the Court of Appeals pursuant to 28 U.S.C. § 1254(1).

RULES AND STATUTE INVOLVED

Rule 1, Fed.R.Civ.P.:

"These rules govern the procedure in the United States district courts in all suits of a civil nature whether cognizable as cases at law or in equity or in admiralty, with the exceptions stated in Rule 81...."

Rule 19, Fed.R.Civ.P.:

"**(a) Persons to be Joined if Feasible**. A person who is subject to service of process and whose joinder will not deprive the court of jurisdiction over the subject matter of the action shall be joined as a party in the action if (1) in the person's absence complete relief cannot be accorded among those already parties, or (2) the person claims an interest relating to the subject of the action and is so situated that the deposition of the action in the person's absence may (i) as a practical matter impair or impede the person's ability to protect that interest or (ii) leave any of the persons already parties subject to a substantial risk of incurring double, multiple, or otherwise inconsistent obligations by reason of the claimed interest. If the person has not been so joined, the court shall order that the person be made a party. If the person should join as a plaintiff but refuses to do so, the person may be made a defendant, or, in a proper case, an involuntary plaintiff. If the joined party objects to venue and joinder of that party would render the venue of the action improper, that party shall be dismissed from the action.

"**(b) Determination by Court Whenever Joinder not Feasible.** If a person as described in subdivision (a)(1)-(2) hereof cannot be made a party, the court shall determine whether in equity and good conscience the action should proceed among the parties before it, or should be dismissed, the absent person being thus regarded as indispensable. The factors to be considered by the court include: first, to what extent a judgment rendered in the person's absence might be prejudicial to the person or those already parties; second, the extent to which, by protective provisions in the judgment, by the shaping of relief, or other measures, the prejudice can be lessened or avoided; third, whether a judgment rendered in the person's absence will be adequate; fourth, whether the plaintiff will have an adequate remedy if the action is dismissed for nonjoinder."

28 U.S.C. § 2072:

"(a) The Supreme Court shall have the power to prescribe general rules of practice and procedure ... for cases in the United States district courts ... and courts of appeals.

"(b) .... All laws in conflict with such rules shall be of no further force or effect after such rules have taken effect."

STATEMENT OF THE CASE

Petitioners seek review of the judgment of a divided panel of the Federal Circuit affirming the dismissal of petitioners' complaint. The district court had original jurisdiction over this case in the first instance pursuant to 28 U.S.C. § 1338(a). The Federal Circuit had jurisdiction over the appeal pursuant to 28 U.S.C. § 1295(a)(1).

1. The Nature of the Case and the '773 Patent

This is an action for infringement of U.S. Patent 4,535,773 (the "'773 patent"). That patent covers, *inter alia*, a shielded trocar and a method for its use in endoscopic (*i.e.*, minimally invasive) surgery.[1]

The '773 patent issued on August 20, 1985 with InBae Yoon, M.D., as the sole named inventor. Dr. Yoon is a prolific inventor who holds many patents on surgical instruments. Dr. Yoon granted Ethicon an exclusive license under the '773 patent in 1988. Ethicon commenced this action against United States Surgical Corporation ("U.S. Surgical") in 1989.

---

[1] Trocars are surgical instruments that generally have a sharp cutting tip housed in a hollow tube. They are used in endoscopic surgery to make an incision or opening to provide a passageway for other surgical instruments.

2. Ethicon's Claim for Accrued Damages

More than five years after U.S. Surgical began infringing the '773 patent and more than three years after Ethicon commenced this action, U.S. Surgical obtained a license under the '773 patent, which, as a matter of law, has prospective effect only. Before it obtained that license, U.S. Surgical had sold hundreds of millions of dollars worth of infringing trocars. As a result of infringing acts committed prior to obtaining that license, U.S. Surgical had accrued liability for damages totalling many millions of dollars, before possible trebling.

3. The Choi/U.S. Surgical License Agreement

U.S. Surgical obtained the relevant license after interrogatory responses in this lawsuit identified a technician named Young Jae Choi as someone who had assisted Dr. Yoon. In an effort to obtain authorization for what otherwise would be acts of infringement, U.S. Surgical's lawyers contacted Mr. Choi in the Summer of 1992, and advised him that he was "probably [a] contributor" to the '773 inventions. They then began negotiations, culminating in an agreement that was signed in September 1992.

The agreement provides, *inter alia*, for U.S. Surgical to pay Mr. Choi up to $1.3 million, contingent on its obtaining a favorable result in this case, in exchange for an exclusive license authorizing U.S. Surgical to practice Mr. Choi's "trocar related inventions."

4. Mr. Choi's Voluntary Joinder in the Action

As part of his agreement with U.S. Surgical, Mr. Choi promised to "join th[is] action as a party" if U.S. Surgical asked him to do so. Mr. Choi voluntarily intervened in this lawsuit as a defendant in June 1993, pursuant to a stipulation that was executed by all parties and signed by the Court. *See* 103a.

5. The District Court's Orders Correcting Inventorship and Dismissing the Complaint

U.S. Surgical took the first steps to capitalize on its agreement with Mr. Choi in October 1992, when it moved to "correct" the inventorship of the '773 patent to add Mr. Choi as a named inventor. In connection with that motion, U.S. Surgical alleged that Mr. Choi had co-invented fourteen of the 55 claims in the '773 patent.

In a decision dated September 9, 1996, the district court granted the motion to correct inventorship. 47a, *Ethicon v. U.S. Surgical*, 937 F. Supp. 1015. It found that Mr. Choi had contributed to the conception of two of the claims in the '773 patent, *i.e.*, claims 33 and 47. Neither one of these claims covers the basic invention of a shielded trocar that U.S. Surgical is accused of infringing.[2]

---

[2] Claim 33 of the '773 patent covers a trocar with a blunt probe located in an aperture of the trocar blade. Claim 47 covers a trocar whose blade retracts after a sensor detects penetration of the abdominal wall. No one makes or sells

After the district court's ruling on inventorship, U.S. Surgical moved to dismiss Ethicon's complaint. The district court granted that motion on February 10, 1997, based on its prior finding that Mr. Choi was a co-inventor and on the license he had given U.S. Surgical in 1992. 41a, *Ethicon v. U.S. Surgical*, 954 F. Supp. 51.

6. The Federal Circuit's Decision

A divided panel of the Federal Circuit affirmed the dismissal of Ethicon's complaint. Specifically, it affirmed the district court's finding that Mr. Choi co-invented claims 33 and 47 of the '773 patent (which U.S. Surgical is not accused of infringing) as not clearly erroneous. It also ruled that Mr. Choi's role as a co-inventor of these claims made him a co-owner of all 55 claims in the '773 patent, including the 53 claims that he did not co-invent.

The court below then considered whether the September 1992 agreement between Mr. Choi and U.S. Surgical insulates U.S. Surgical from liability to Ethicon. It held, as a matter of substantive patent law, that the license could not have "retroactive effect" and that, as a matter of law, one co-owner "cannot grant a release of another co-owner's right to accrued damages." 23a, *Ethicon v. U.S. Surgical*, 135 F.3d at 1467. That holding is consistent with case law that has been settled for almost a century, *see Lalance & Grosjean Mfg. Co. v. Haberman*

---

instruments covered by either of these claims.

Mfg. Co., 93 F. 197, 198-99 (C.C.D.N.Y. 1899), and all three judges on the panel agreed with it.

But after finding that Mr. Choi could not grant a release for past damages, the Federal Circuit eviscerated that holding for all practical purposes. It found that Mr. Choi could achieve the same result as a prohibited release simply by refusing to join the suit as a plaintiff. Disregarding Rule 19, Fed.R.Civ.P., it held that the action had to be dismissed because it "lack[ed] the participation of a co-owner of the patent," *i.e.*, Mr. Choi, even though Mr. Choi already was present in the action as a defendant. 27a, *Ethicon v. U.S. Surgical*, 135 F.3d at 1468.

The Federal Circuit's stated rationale was that, as a matter of "substantive patent law, all co-owners must ordinarily consent to join as plaintiffs in an infringement suit." 25a, *Ethicon v. U.S. Surgical*, 135 F.3d at 1467. As support for that proposition, the Federal Circuit cited two nineteenth-century cases, *Waterman v. Mackenzie*, 138 U.S. 252 (1891), and *Moore v. Marsh*, 74 U.S. (7 Wall.) 515 (1868), which were decided prior to the 1966 amendments to Rule 19, Fed.R.Civ.P., and indeed, prior to the enactment of the Federal Rules of Civil Procedure. The dissenting judge, Hon. Pauline Newman, disagreed and viewed Rule 19 as controlling on any issues that were raised by Mr. Choi's refusal to join as a plaintiff. The panel majority, however, disregarded Rule 19. Its holding—that "substantive patent law" rather than Rule 19 controls the joinder of co-owners in patent cases--ignores the controlling force of Rule 19, and conflicts with this

Court's decision in *Provident Tradesmens Bank & Trust Co. v. Patterson*, 390 U.S. 102 (1968).

Moreover, the decision below undermines the enforcement of patents and is contrary to public policy. If substantive patent law bars a co-owner from unilaterally releasing a third-party from accrued liability for past infringement—and the court below so held—then a co-owner should not be able to achieve the same result by refusing to join as a plaintiff. It exalts form over substance to hold that a co-owner *cannot* grant a license immunizing a third-party from liability for past infringement, but *can* achieve the same result by refusing to join as a plaintiff in a lawsuit seeking redress for that past infringement. Even the panel majority admitted that the result of its decision is "effectively no different than if Choi could grant a [prohibited] release to U.S. Surgical of any liability to Ethicon." 26a, *Ethicon v. U.S. Surgical*, 135 F.3d at 1468.

7. The Dissenting Opinion in the Federal Circuit

Circuit Judge Pauline Newman dissented from the dismissal of Ethicon's complaint. In her view, any issues raised by Mr. Choi's refusal to join as a plaintiff should be resolved under Rule 19, Fed.R.Civ.P. She described the dismissal of the complaint as contrary to "[p]recedent and the Federal Rules [of Civil Procedure]," particularly because Mr. Choi was "before the court as a party, having voluntarily intervened, by general appearance." 37-38a, *Ethicon v. U.S. Surgical*, 135 F.3d at 1472.

REASONS FOR GRANTING THE WRIT

The Federal Circuit's holding in this case presents an important, indeed, a fundamental question of federal civil procedure: Does "substantive patent law" or Rule 19, Fed.R.Civ.P., govern joinder issues involving co-owners in patent cases? The Federal Circuit's answer to that question cannot be reconciled with Rule 1, Fed.R.Civ.P., which states that the Federal Rules of Civil Procedure "govern" in "*all* suits of a civil nature ... with the exceptions stated in Rule 81 [none of which pertain to patent actions]" (emphasis added). Nor can it be reconciled with this Court's holding in *Provident Tradesmens Bank & Trust Co. v. Patterson*, 390 U.S. 102, 118-19 (1968) (hereafter "*Provident*"), that "substantive law" cannot override the provisions of Rule 19.

The decision below is inconsistent with Rule 19 and defies common sense. Rule 19 provides that where a person "needed for just adjudication" should join an action as a plaintiff but "refuses to do so, the person may be made a defendant, or, in a proper case, an involuntary plaintiff." The principle of "substantive law" that the Federal Circuit announced is directly contrary to that Rule. It mandates dismissal *even where a patent co-owner already is present as a defendant* or can be "made a defendant" or an "involuntary plaintiff" under Rule 19. That holding conflicts with *Provident* and with decisions from other circuits which make clear that dismissal for non-joinder is inappropriate where a necessary party is present or could feasibly be joined in an action.

In addition, the joinder rule that the Federal Circuit created undermines the constitutionally mandated policy favoring the enforcement of patent rights. It allows one patent co-owner to destroy other co-owners' rights to damages for past infringement, even though no co-owner could unilaterally release an infringer from liability for such damages. Moreover, it encourages infringers to offer financial inducements to technicians or consultants who assisted inventors, in exchange for such persons asserting claims of co-inventorship and promising not to join an infringement action as plaintiffs.

The decision below has been soundly criticized. As commentators have recognized, it tends to "ero[de] ... the social policy against patent infringement." Dana L. Carlson and James R. Barney, "Who Owns What's In Your Patent?," 5 *Intellectual Property Today*, at p. 11 (June 1998) (hereafter, "*Intell. Prop. Today*"). It is a "landmark case" that raises "very important issues" and merits review by this Court. *Id.*

I. THIS COURT SHOULD GRANT CERTIORARI TO CONFIRM THAT JOINDER OF PATENT CO-OWNERS IS GOVERNED BY RULE 19, RATHER THAN BY PRINCIPLES OF "SUBSTANTIVE PATENT LAW"

Under the Rules Enabling Act, 28 U.S.C. § 2072, the Federal Rules of Civil Procedure have the force of statutory law. Moreover, by their express terms, the Federal Rules "govern the procedure in the United States

district courts in *all* suits of a civil nature ... with the exceptions stated in Rule 81 [none of which pertain to patent actions]." Rule 1, Fed.R.Civ.P. (emphasis added).

The Federal Circuit's decision in this case clashes with the basic principles set forth in Section 2072 and in Rule 1. It holds—over a dissenting opinion which urged the application of Rule 19—that joinder of co-owners in patent actions is governed by principles of "substantive patent law," not by the Federal Rules. And according to the Federal Circuit, "substantive patent law" requires dismissal unless all patent co-owners voluntarily join an infringement suit as plaintiffs, *even if a non-consenting co-owner already is present as defendant.*

That holding replicates the error that this Court identified in *Provident.* That case reversed a lower court decision which held that, as a matter of "substantive law," a certain category of persons had the right to "participate in the lawsuit in question ... [as] a substantive matter," and that this substantive right was "absolute" and "cannot be modified by rule" (*e.g.*, Rule 19). *Id.*, 390 U.S. at 118. In reversing that decision, this Court cited with approval a commentator's conclusion that "there is no case support for the proposition that judge-made doctrines of compulsory joinder have created substantive rights beyond the reach of rulemaking power." *Id.*, 390 U.S. at 118, n.3. This Court "contrast[ed]" the lower court's view with "the position that is reflected in Rule 19," *id.*, and stated:

> "The decision whether to dismiss (*i.e.*, the decision whether the person missing is

> 'indispensable') must be based on factors varying with the different cases, some such factors being substantive, some procedural, some compelling by themselves, and some subject to balancing against opposing interests. Rule 19 does not prevent the assertion of compelling substantive interests; it merely commands the courts to examine each controversy to make certain that the interests really exist. To say that a court 'must' dismiss in the absence of an indispensable party and that it 'cannot proceed' without him puts the matter the wrong way around: a court does not know whether a particular person is 'indispensable' until it has examined the situation to determine whether it can proceed without him."

Id., 390 U.S. at 118. As *Provident* makes clear, the question of whether to dismiss an action for non-joinder is not governed by substantive law, but rather by the factors set forth in Rule 19.

The Federal Circuit's decision in this case adopts the approach that this Court denounced as unsound in *Provident.* Like the lower court in *Provident*, the Federal Circuit applied "substantive ... law" rather than Rule 19 in defining a category of persons (*i.e.*, patent co-owners) as *per se* indispensable. And like the lower court in *Provident*, it disregarded the factors that must be applied

under Rule 19 in deciding whether an action should be dismissed for non-joinder.

That decision is especially puzzling because the Federal Circuit has previously applied Rule 19 in cases that do not involve patent co-owners. *See, e.g., Vaupel Textilmaschinen KG v. Meccanica Euro Italia SPA*, 944 F.2d 870, 876 (Fed. Cir. 1991); *Katz v. Lear Siegler, Inc.*, 909 F.2d 1459, 1461-62 (Fed. Cir. 1990).

The Federal Circuit's decision to apply "substantive patent law" rather than Rule 19 in a case involving patent co-owners conflicts with the Sixth Circuit's decision in *Willingham v. Lawton*, 555 F.2d 1340, 1346 (6th Cir. 1977), which found under the facts presented that Rule 19(a) "require[d] the ... joinder of [an absent patent co-owner] as an involuntary plaintiff in [an] infringement suit."

Moreover, district courts that have thoughtfully addressed the issue have concluded that "the adoption of amended Rule 19 ... makes inappropriate any contention that patent co-owners are *per se* indispensable in infringement suits." *Catanzaro v. International Telephone & Telegraph Corp.*, 378 F. Supp. 203, 205 (D. Del. 1974). *Accord*: *Michaels of Oregon Co. v. Mil-Tech, Inc.*, 38 USPQ2d 1060, 1061 (D. Or. 1995) ("Since the introduction of Fed.R.Civ.P. 19, courts are less concerned with abstract characterizations of the parties and more concerned with whether the rights of the parties can be fairly adjudicated absent joinder of a patent co-owner.");

Howes v. Medical Components, Inc., 698 F. Supp. 574, 576 (E.D. Pa. 1988); *Windsurfing Int'l, Inc. v. Ostermann*, 100 F.R.D. 82, 83-84 (S.D.N.Y. 1983). *Cf.*, *Tycom Corp. v. Redactron Corp.*, 380 F. Supp. 1183, 1186-87 (D.Del. 1974).

By applying "substantive patent law" principles rather than Rule 19, the Federal Circuit has turned back the clock to a time before the *Provident* decision and, indeed, before the Federal Rules of Civil Procedure were enacted.[3] As support for its "substantive patent law" principle, the Federal Circuit cited cases that pre-date the enactment of the Federal Rules, *Waterman v. MacKenzie*, 138 U.S. 252 (1891); *Moore v. Marsh*, 74 U.S.(7 Wall.) 515 (1868). The Federal Circuit characterized the principle as "substantive," but the nineteenth-century cases were addressing procedural concerns that are now addressed by Rule 19. The Sixth Circuit explained the rationale underlying the older cases in *Willingham*, 555 F.2d at 1344:

---

[3] Even under former Equity Rule 37, which applied before the enactment of the Federal Rules, a co-owner who refused to participate in an infringement action as a plaintiff could "'be made a defendant'" if he or she was "subject to the jurisdiction of th[e] court." *Rainbow Rubber Co. v. Holtite Mfg. Co.*, 20 F. Supp. 913, 914 (D.Md. 1937) (requiring dismissal where a patent co-owner was "not subject to [the court's] jurisdiction" and could not be made a defendant).

> "The decisions indicate three primary interests protected by a requirement that all co-owners must join in a patent infringement suit: (1) the interest of a co-owner in being able to license third parties under his or her patent without harassing suits by other co-owners; (2) the interest of a co-owner in avoiding the estoppel effect of a judgment declaring the patent invalid in which he or she did not participate; and (3) the interest of a defendant in avoiding multiple suits concerning infringement of the same patent."

These interests, underlying the "substantive law" principle that the Federal Circuit cited, are the same concerns that Rule 19 is designed to address.[4] Under this Court's

---

[4] The second and third *Willingham* factors are expressly addressed in Rule 19. The one remaining factor, involving a co-owner's interest "in being able to license third-parties ... without harassing suits by other co-owners," *id.*, relates to a co-owner's ability to protect licensees from meritless suits. This factor comes into play in suits for prospective relief because any co-owner may unilaterally authorize third-parties to practice a patent *prospectively*, *Willingham*, 555 F.2d at 1344, but it has no bearing on suits for accrued damages, because a co-owner may not *retroactively* release another co-owner's claim for past damages. *Schering Corp. v. Zeneca, Inc.*, 104 F.3d 341, 345 (Fed. Cir. 1997). Thus, this factor is applicable only insofar as an infringement action seeks to enjoin authorized activity by licensees done subsequent to a license.

decision in *Provident*, Rule 19—rather than any "substantive ... law" principle—is the sole vehicle for addressing these concerns.

The decision below moves the Federal Circuit and patent cases far outside the mainstream of Rule 19 jurisprudence. There is no other circuit and no other area of the law where "substantive ... law" principles, rather than Rule 19 factors, require dismissal based on non-joinder. Nor could any Court take that approach consistent with *Provident.*[5]

This Court should grant certiorari to confirm that "substantive patent law" does not override Rule 19 on issues of joinder of co-owners in patent cases, and to emphasize that its decision in *Provident* is fully applicable to patent cases.

---

[5] Unfortunately, patent law has been notoriously resistant to the pragmatic approach that Rule 19 embodies. As a leading commentator has observed, "in the past, there has been considerable formalism in determining who were necessary and indispensable parties to litigation involving ... patents ...." 7 Wright, Miller & Kane, *Federal Practice and Procedure*, §1614, p. 203 (1986). Despite this Court's decision in *Provident*, there is still a "dispute as to whether Rule 19 or the older decisions on parties in patent suits should be controlling." 8 *Chisum on Patents*, 21-284 (1993). *Compare, e.g., Howes*, 698 F. Supp. at 576, and *Catanzaro*, 378 F. Supp. at 205, *with Chem-Tainer Indus., Inc. v. Wilkin*, 44 USPQ2d 1114, 1119 (C.D. Cal. 1997).

II. DISMISSING AN ACTION FOR NON-JOINDER OF A PARTY WHO ALREADY IS PRESENT CONFLICTS WITH DECISIONS OF THIS COURT AND ALL OF THE REGIONAL CIRCUITS

In addressing Mr. Choi's refusal to join as a plaintiff, the Federal Circuit reached an anomalous result: *It required dismissal for non-joinder of a party who already is present in the case.*

That decision conflicts with decisions by this Court and by all of the regional circuits. As this Court made clear in *Provident*, courts should not even *consider* a dismissal for non-joinder unless a necessary party is *absent* and cannot feasibly be joined. As *Provident* explains, Rule 19 requires courts to apply a two-step analysis for determining whether an action may continue or should be dismissed for non-joinder of an *absent* party. The first step is considering whether any person who is interested in the outcome is *absent* from the case, *i.e.*, whether there are any *absent* necessary parties. If a necessary person is absent but can feasibly be joined, the Rule requires that the person be brought into the case. The second step involves deciding whether the case should continue or be dismissed, and is a step that is taken only "when joinder [of an absent necessary person] is not possible...." *Provident*, 390 U.S. at 118-19. *Accord*: *Martin v. Wilks*, 490 U.S. 755, 764 (1989) (stating that Rule 19 "sets forth the factors to be considered by a courts in deciding whether to allow an action to proceed *in the absence of an interested party.*") (emphasis added).

Apart from this case, we are not aware of any case that requires dismissal of an action for non-joinder where the person in question already is *present* in the case. Nor could any court so hold consistent with Rule 19.

Even in cases where a necessary party is *absent*, the rule in every other circuit—consistent with Rule 19 and with *Provident*—is that courts should not even consider dismissal for non-joinder where that party can feasibly be joined,[6] either as a defendant or, "in a proper case, as an involuntary plaintiff."[7]

---

[6] *See, e.g., Metropolitan Life Ins. Co. v. Ditmore*, 729 F.2d 1, 8 (1st Cir. 1984); *ConnTech Dev. Co. v. Univ. of Conn. Educ. Prop., Inc.*, 102 F.3d 677, 681-82 (2d Cir. 1996); *Bank of America Nat'l Trust and Savings Ass'n v. Hotel Rittenhouse Assoc.*, 844 F.2d 1050, 1053-54 (3d Cir. 1988); *Pulitzer-Polster v. Pulitzer*, 784 F.2d 1305, 1309 (5th Cir. 1986); *Keweenaw Bay Indian Community v. State of Michigan*, 11 F.3d 1341, 1345-46 (6th Cir. 1993); *United States ex rel. Hall v. Tribal Development Corp.*, 100 F.3d 476, 478-79 (7th Cir. 1996); *Ranger Transportation, Inc. v. Wal-Mart Stores*, 903 F.2d 1185, 1187 (8th Cir. 1990); *Confederated Tribes of the Chehalis Indian Reservation v. Lujan*, 928 F.2d 1496, 1498 (9th Cir. 1991); *Mescalero Apache Tribe v. State of New Mexico*, 131 F.3d 1379, 1383 (10th Cir. 1997); *Challenge Homes, Inc. v. Greater Naples Care Center, Inc.*, 669 F.2d 667, 669 (11th Cir. 1982); *Cherokee Nation of Oklahoma v. Babbitt*, 117 F.3d 1489, 1495-96 (D.C. Cir. 1997).

[7] *See, e.g., Willingham*, 555 F.2d at 1345-46 (affirming the joinder of a patent co-owner as an involuntary

Patent cases involving co-owners are no exception to these basic principles. *See, e.g., Willingham*, 555 F.2d at 1345-46 (applying Rule 19 in a patent case to require the involuntary joinder of a patent co-owner who was absent from the case). *See also, Michaels of Oregon*, 1995 U.S. Dist. LEXIS 20875, *4-5; *Howes*, 698 F. Supp. at 576-79; *Windsurfing Int'l*, 100 F.R.D. at 83-84; *Tycom*, 380 F. Supp. at 1186-87; *Catanzaro*, 378 F. Supp. at 205.

There are good reasons why Rule 19 permits dismissal of an action *only* where a necessary party is *absent* and cannot feasibly be joined. Where a necessary party is *present*, the interests underlying Rule 19 are fully served regardless of the capacity in which the person has been joined. Thus, a patent co-owner's presence in a lawsuit, whether as plaintiff or defendant, protects the accused infringer from the possibility of multiple suits based on the same conduct, because the co-owner will be bound by the judgment under principles of *res judicata*. *See, Howes*, 698 F. Supp. at 577; *Windsurfing Int'l*, 100 F.R.D. at 83. Moreover, a co-owner's presence, whether as plaintiff or defendant, avoids the danger that a patent in which the co-owner has an interest might be ruled invalid or unenforceable or might be narrowly construed, without the co-owner having the ability to protect his or her interests against such an outcome. *See Windsurfing Int'l*,

---

plaintiff under Rule 19(a)). *See also, Eikel v. States Marine Lines, Inc.*, 473 F.2d 959, 962 (5th Cir. 1973) (affirming the joinder of a previously absent person as a defendant under Rule 19(a)).

100 F.R.D. 82. In short, the interests underlying Rule 19 are well served if a co-owner is present, regardless of the capacity in which it has been joined. There accordingly is no reason or basis under the Federal Rules for dismissing an action due to a co-owner's refusal to join as a plaintiff, if that co-owner is present as a defendant.

The Federal Circuit's decision, requiring dismissal in such circumstances, conflicts with *Provident* and with cases from all of the regional circuits. It exhibits a rigid formalism that works substantial injustice. This Court should grant certiorari to resolve the split between circuits on the question of whether it is permissible to dismiss an action for non-joinder when the person in question already is present in the case.

III. THIS COURT SHOULD GRANT CERTIORARI TO CONFIRM THAT, AS A MATTER OF SUBSTANTIVE PATENT LAW, ONE PATENT CO-OWNER CANNOT DESTROY THE OTHERS' RIGHT TO DAMAGES FOR PAST INFRINGEMENT

For almost a century, it has been settled law that one co-owner of a patent lacks "the power to destroy the other's right to accrued damages." *Lalance & Grosjean Mfg. Co. v. Haberman Mfg. Co.*, 93 F. 197, 198-99 (C.C.D.N.Y. 1899). *See also, Schering Corp. v. Zeneca, Inc.*, 104 F.3d 341, 345 (Fed.Cir. 1997) (holding that "the grant of a license by one co-owner cannot deprive the other co-owner of the right to sue for accrued damages for

patent infringement."). The decision below pays lip service to that rule, but completely eviscerates it.

The decision below reaffirms that one patent co-owner cannot unilaterally release a third-party from liability to other co-owners for accrued damages based on past infringement. 23a, *Ethicon v. U.S. Surgical Corp.*, 135 F.3d at 1468. However, it effectively nullifies that rule by requiring dismissal where one co-owner refuses to be a plaintiff in a lawsuit brought by another co-owner. *Id.* As the court below candidly acknowledged, requiring dismissal where one co-owner refuses to join as a plaintiff is "effectively no different than if [the non-consenting co-owner] could grant a [prohibited] release to [a third-party] of any liability to [the other co-owner]." 26a, *Ethicon v. U.S. Surgical*, 135 F.3d at 1468.

The rule that the Federal Circuit announced might be consistent with substantive patent law in those rare actions that are directed only at enjoining a third-party's *future* conduct because, as a matter of substantive patent law, each co-owner has the power unilaterally to authorize a third-party to practice the patent in the future. *See Willingham*, 555 F.2d at 1345. But that approach makes is inconsistent with substantive patent law no sense whatsoever where an action seeks, in whole or in part, to recover accrued damages for *past* infringement. That is because, as a matter of substantive patent law, no co-owner has the power to release a third-party from liability to other co-owners for past infringement. *Schering*, 104 F.3d at 345; *Lalance*, 93 F. at 198-99.

It exalts form over substance to hold—as the Federal Circuit held—that a co-owner *cannot* grant a license immunizing a third-party from liability for past infringement, but *can* block a suit addressed to that same past infringement by agreeing not to join as a plaintiff. 23-27a, *Ethicon v. U.S. Surgical*, 135 F.3d at 1466-68. After all, "a license is simply a promise not to sue for what would otherwise be patent infringement." *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 707 (Fed. Cir. 1992). Only legal gamesmanship can support the notion that a co-owner *cannot* grant a "license" retroactively releasing past infringement, but *can* promise not to join as a plaintiff in a suit seeking damages for the same infringing acts.

The decision below is especially anomalous when one takes into account that persons like Mr. Choi—who are named as co-inventors by court order subsequent to the issuance of a patent—lack standing to recover damages for acts of infringement that occur prior to the court order naming them as co-inventors. *See, Heidelberg Harris, Inc. v. Joebach*, ___ F.3d ___, 1998 U.S. App. LEXIS 11490, *8 (Fed. Cir. June 2, 1998) (holding that a court cannot "retroactively vest legal title in [the unnamed inventor] for purposes of standing."); *Arachanid, Inc. v. Merit Industries, Inc.*, 939 F.2d 1544 (Fed. Cir. 1991). It makes little sense to require the willing participation of such persons as plaintiffs in actions for past damages (as the Federal Circuit did in this case) when, under *Heidelberg Harris* and *Arachanid*, such persons have no standing to recover any portion of the past damages that such suits are aimed at recovering.

Co-ownership of patents is common,[8] and the decision below leaves every co-owner unable to have redress for past infringement unless all co-owners join in seeking that relief. This diminishes the ability of co-owners to enjoy the fruits of patent ownership.

---

[8] This is confirmed by the existence of many cases involving jointly owned patents. *See, e.g., Schering*, 104 F.3d 1456; *Hall v. Aqua Queen Mfg., Inc.*, 93 F.3d 1548, 1551 (Fed. Cir. 1996); *Burroughs Wellcome v. Barr Labs. Inc.*, 40 F.3d 1223, 1225 (Fed. Cir. 1994); *Willingham*, 555 F.2d 1340; *Wyttenbach v. Atoma Int'l, Inc.*, 1998 U.S. Dist. LEXIS 3005, *10 n.4 (N.D. Ill. 1998); *Dynamic Mfg., Inc. v. Craze*, 46 USPQ2d 1548 (E.D. Va. 1998); *Renishaw plc v. Marposs Societa per Azioni*, 974 F. Supp. 1056, 1066 (E.D. Mich. 1997); *Raines v. Switch Mfg. Corp.*, 1996 U.S. Dist. LEXIS 10367, *1 (S.D.N.Y. 1996); *Michaels of Oregon*, 1995 U.S. Dist. LEXIS 20875; *Zumbro, Inc. v. Calif. Natural Products*, 861 F. Supp. 773, 775 (D. Minn. 1994); *International Business Machines Corp. v. Conner Peripherals, Inc.*, 30 USPQ2d 1315 (N.D. Cal. 1994); *Flight Concepts L.P. v. Boeing Co.*, 819 F. Supp. 1535, 1547 (D. Kan. 1993); *Tandem Computers, Inc. v. Yuter*, 1992 U.S. Dist. LEXIS 2255, *1 (N.D. Cal. 1992); *Oiness v. Walgreen Co.*, 774 F. Supp. 1277, 1282 (D. Colo. 1991); *Refac Intern. Ltd. v. Lotus Dev. Corp.*, 131 F.R.D. 56 (S.D.N.Y. 1990); *Howes*, 698 F. Supp. 574; *Patlex Corp. v. Quigg*, 680 F. Supp. 33, 34 (D.D.C. 1988); *Windsurfing Int'l*, 100 F.R.D. 82; *Cilco, Inc. v. Copeland Intralenses, Inc.*, 614 F. Supp. 431, 434 (S.D.N.Y. 1985); *Valutron, N.V. v. NCR Corp.*, 99 F.R.D. 254, 255 (S.D. Ohio 1982); *Catanzaro*, 378 F. Supp. 203.

Because the Federal Circuit has exclusive jurisdiction over all appeals in patent cases, no other circuit will have the opportunity to address these issues. This Court should grant certiorari to address the question of whether a patent co-owner has the power to destroy other co-owners' right to accrued damages (as the Federal Circuit has now held) or lacks that power (as was the rule under prior law). *See*, *Schering*, 104 F.3d at 345; *Lalance*, 93 F. at 198-99.

IV. THE DECISION BELOW CREATES A NEW DEFENSE TO DAMAGE CLAIMS IN INFRINGEMENT ACTIONS, AND UNDERMINES THE STRONG PUBLIC POLICY IN ENFORCING VALID PATENTS

The decision below is contrary to the public policy in the enforcement of valid patents. It not only permits one co-owner to frustrate other co-owners' efforts to recover damages for past infringement, but also provides infringers with a road map for establishing a new defense in patent infringement actions. It encourages infringers to seek out consultants or technicians who assisted the inventor, and to offer such persons financial rewards for claiming co-inventor status and promising not to join as plaintiffs in an infringement action.

Petitioners are not alone in recognizing the evils that this new defense would cause. As commentators have stated:

> "[The Federal Circuit's decision in this case] creates an incentive for infringers to shop for 'latent' co-inventors, such as Mr. Choi, who are willing to act as 'road-blocks' to preclude enforcement by other patent owners against identified infringers. This has the net effect of ... decreasing the likelihood that infringers will be sued successfully ...."

5 *Intell. Prop. Today* at p.11.

Moreover, as explained in an *amicus curiae* brief that urged rehearing in the Federal Circuit, the decision below is "particularly damaging to ... small business and individual patent owners," who will "now face the very real risk of essentially losing the value of a patent" if a consultant or technician who provided "minor assistance" provides a license to a third-party infringer. (*Amicus Curiae* Br. of Intern'l Nutrition Co., at p.4). For these and other reasons, the decision is "against public policy." *Id.*

The facts of this case illustrate the dangers of the new defense that the Federal Circuit's decision creates. After infringing the '773 patent for years, and after being sued for that infringement, U.S. Surgical learned in the course of discovery that the named inventor of the '773 patent, like many other inventors, had been assisted by a technician in the course of his work. U.S. Surgical then contacted that technician and, in an effort to obtain authorization for its otherwise infringing acts, encouraged him to assert a claim of co-inventorship in this lawsuit. In

return, U.S. Surgical agreed to pay the technician up to $1.3 million, contingent on its obtaining a favorable outcome in this case.[9] Before entering into that agreement, U.S. Surgical had sold hundreds of millions of dollars worth of infringing trocars, and had accrued liability totalling many millions of dollars in damages for its infringing acts. Consistent with prior law, the Federal Circuit found that the agreement between U.S. Surgical and Mr. Choi *could not* release U.S. Surgical from accrued liability for its past infringement. But, in an unprecedented decision, the Federal Circuit found that Mr. Choi *could* insulate U.S. Surgical from that same liability by refusing to join this lawsuit as a plaintiff.

Unless the decision below is reviewed by this Court and reversed, infringers in future cases can be expected to seek out technicians or consultants who worked with an inventor and offer to pay them contingent fees to assert claims of co-inventorship in a court of law. That would further complicate patent infringement actions and make it more difficult to enforce valid patent rights. It would lead

---

[9] The federal criminal code, 18 U.S.C. § 201(c)(2), makes it a felony to pay for the testimony of a fact witness. The Federal Circuit found that this Section did not preclude contingent payments to Mr. Choi, on the theory that he is an "inventor" and license agreements requiring an inventor to participate in litigation are "very common." 18a, *Ethicon v. U.S. Surgical*, 135 F.3d at 1465. However, Mr. Choi became an "inventor" by virtue of the testimony that U.S. Surgical paid him for.

to "potential inequities" and "ero[de] the social policy against patent infringement." 5 *Intell. Prop. Today* at p.11.

In sum, the Federal Circuit's decision seriously undermines the strong policy in enforcing valid patents. The public policy implications of the decision make it all the more appropriate for this Court's review.

CONCLUSION

Commentators are correct in describing this case as a "landmark case" that raises "very important issues." 5 *Intell. Prop. Today* at p.11. Because the Federal Circuit has "exclusive jurisdiction from all United States District Courts in patent litigation ...," the rule that it fashioned in this case has nationwide consequences and is "a matter of special importance to the entire Nation." *Cardinal Chem. Co. v. Morton Int'l. Inc.*, 508 U.S. 83, 89 (1993). This Court should grant certiorari to resolve the important issues that are raised by this case.

Respectfully submitted,

David F. Dobbins
Counsel of Record
Gregory L. Diskant
Thomas W. Pippert
Eugene M. Gelernter
PATTERSON, BELKNAP,
WEBB & TYLER LLP
1133 Avenue of the Americas
New York, NY 10036
(212) 336-2000
Attorneys for Petitioners

Of Counsel:
Geoffrey C. Hazard, Jr.
200 W. Willow Grove
Philadephia, PA 19118

Theodore B. Van Itallie, Jr.
Harman Avery Grossman
JOHNSON & JOHNSON
One Johnson & Johnson Plaza
New Brunswick, NJ 08933

APPENDIX

United States Court of Appeals for the Federal Circuit

97-1269

ETHICON, INC. And
INBAE YOON, M.D.,

Plaintiffs-Appellants,

v.

UNITED STATES SURGICAL CORPORATION
and YOUNG JAE CHOI,

Defendants-Appellees.

DECIDED: February 3, 1998

Before NEWMAN, Circuit Judge, SKELTON, Senior Circuit Judge, and RADER, Circuit Judge.

Opinion for the court filed by Circuit Judge RADER. Circuit Judge, NEWMAN dissents.

RADER, Circuit Judge.

In this patent infringement action, Dr. InBae Yoon (Yoon) and his exclusive licensee, Ethicon, Inc. (Ethicon), appeal from the judgment of the United States District Court for the District of Connecticut. In 1989, Yoon and Ethicon sued United States Surgical Corporation (U.S. Surgical) for infringement of U.S. Patent No. 4,535,773 (the '773 patent). In

1993, the parties stipulated to the intervention of Mr. Young Jae Choi (Choi) as defendant-intervenor. Choi claimed to be an omitted co-inventor of the '773 patent and to have granted U.S. Surgical a retroactive license under that patent. On U.S. Surgical's motion to correct inventorship of the '773 patent under 35 U.S.C. § 256, the district court ruled that Choi was an omitted co-inventor of two claims, see 937 F. Supp. 1015 (D. Conn. 1996), and subsequently granted U.S. Surgical's motion to dismiss the infringement complaint, see 954 F. Sup. 51 (D. Conn. 1997). Because the district court's determination of co-inventorship was correct, and because Choi is a joint owner of the '773 patent who has not consented to suit against U.S. Surgical, this court affirms.

I. BACKGROUND

The '773 patent relates to trocars, an essential tool for endoscopic surgery. A trocar is a surgical instrument which makes small incisions in the wall of a body cavity, often the abdomen, to admit endoscopic instruments. Trocars include a shaft within an outer sleeve. One end of the shaft has a sharp blade. At the outset of surgery, the surgeon uses the blade to puncture the wall and extend the trocar into the cavity. The surgeon then removes the shaft, leaving the hollow outer sleeve, through which the surgeon may insert tiny cameras and surgical instruments for the operation.

Conventional trocars, however, pose a risk of damage to internal organs or structures. As the trocar blade punctures the cavity wall, the sudden loss of resistance can cause the blade to lunge forward and injure an internal organ. The '773 patent claims a trocar that alleviates this danger. In one embodiment, the invention equips the trocar with a blunt, spring-loaded rod.

As the trocar pierces the cavity wall, the rod automatically springs forward to precede the blade and shield against injury. A second embodiment has a retractable trocar blade that springs back into a protective sheath when it passes through the cavity wall. The patent also teaches the use of an electronic sensor in the end of the blade to signal the surgeon at the moment of puncture.

Yoon is a medical doctor and inventor of numerous patented devices for endoscopic surgery. In the late 1970s. Yoon began to conceive of a safety device to prevent accidental injury during trocar incisions. Yoon also conceived of a device to alert the surgeon when the incision was complete. In 1980, Yoon met Choi, an electronics technician, who had some college training in physics, chemistry, and electrical engineering, but no college degree. Choi had worked in the research and development of electronic devices. After Choi had demonstrated to Yoon some of the devices he had developed, Yoon asked Choi to work with him on several projects, including one for safety trocars. Choi was not paid for his work.

In 1982, after collaborating for approximately eighteen months, their relationship ended. Choi believed that Yoon found his work unsatisfactory and unlikely to produce any marketable product. For these reasons, Choi withdrew from cooperation with Yoon.

In the same year, however, Yoon filed an application for a patent disclosing various embodiments of a safety trocar. Without informing Choi, Yoon named himself as the sole inventor. In 1985, the Patent and Trademark Office issued the '773 patent to Yoon, with fifty-five claims. Yoon thereafter

granted an exclusive license under this patent to Ethicon. Yoon did not inform Choi of the patent application or issuance.

In 1989, Ethicon filed suit against U.S. Surgical for infringement of claims 34 and 50 of the '773 patent. In 1992, while this suit was still pending, U.S. Surgical became aware of Choi, and contacted him regarding his involvement in Yoon's safety trocar project. When Choi confirmed his role in the safety trocar project, U.S. Surgical obtained from Choi a "retroactive license" to practice "Choi's trocar related inventions." Under the license, Choi agreed to assist U.S. Surgical in any suit regarding the '773 patent. For its part, U.S. Surgical agreed to pay Choi contingent on its ultimate ability to continue to practice and market the invention. With the license in hand, U.S. Surgical moved to correct inventorship of the '773 patent under 35 U.S.C. § 256, claiming that Choi was a co-inventor of claims 23, 33, 46 and 47. Following an extensive hearing, the district court granted U.S. Surgical's motion, finding that Choi had contributed to the subject matter of claims 33 and 47.

U.S. Surgical next moved for dismissal of the infringement suit, arguing that Choi, as a joint owner of the patent, had granted it a valid license under the patent. By its terms, the license purported to grant rights to use the patent extending retroactively back to its issuance. The district court granted U.S. Surgical's motion and dismissed the suit.

Ethicon appeals the district court's finding of co-inventorship and its dismissal of the complaint. Specifically, Ethicon contends that (1) Choi supplied insufficient corroboration for its testimony of co-invention; (2) Choi presented insufficient evidence to show co-invention of claims

33 and 47 clearly and convincingly; (3) Choi accepted illegal payment for his factual testimony which the court should therefore have excluded from the proceedings; (4) the terms of the license agreement limit it to only that part of the invention to which Choi contributed, not the entire patent; and (5) even if the agreement licenses the entire patent, it cannot release U.S. Surgical from liability for past infringement.

II. CO-INVENTORSHIP

Patent issuance creates a presumption that the named inventors are the true and only inventors. See Hess v. Advanced Cardiovascular Sys., Inc., 106 F.3d 976, 980, 41 USPQ2d 1782, 1785-86 (Fed. Cir.), cert. denied, 117 S. Ct. 2459 (1997). Inventorship is a question of law, which this court reviews without deference. See Sewall v. Walters, 21 F.3d 411, 415, 30 USPQ2d 1356, 1358 (Fed. Cir. 1994). However, this court reviews the underlying findings of fact which uphold a district court's inventorship determination for clear error. See Hess, 106 F.3d at 980.

A patented invention may be the work of two or more joint inventors. See 35 U.S.C. § 116 (1994). Because "[c]onception is the touchstone of inventorship," each joint inventor must generally contribute to the conception of the invention. Burroughs Wellcome Co. v. Barr Lab., Inc., 40 F.3d 1223, 1227-28, 32 USPQ2d 1915, 1919 (Fed. Cir. 1994). "Conception is the 'formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice." Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1376, 231 USPQ 81, 87 (Fed. Cir. 1986) (quoting 1 Robinson on Patents 532 (1890)). An idea is sufficiently "definite and permanent"

when "only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation." Burroughs Wellcome, 40 F.3d at 1228.

The conceived invention must include every feature of the subject matter claimed in the patent. See Sewall, 21 F.3d at 415. Nevertheless, for the conception of a joint invention, each of the joint inventors need not make the same type or amount of contribution" to the invention. 35 U.S.C. § 116. Rather, each needs to perform only a part of the task which produces the invention. On the other hand, one does not qualify as a joint inventor by merely assisting the actual inventor after conception of the claimed invention. See Sewall, 21 F.3d at 416-17; Shatterproof Glass Corp. v. Libbey-Owens Ford Co., 758 F.2d 613, 624, 225 USPQ 634, 641 (Fed. Cir. 1985) ("An inventor may use the services, ideas and aid of others in the process of perfecting his invention without losing his right to a patent," (quoting Hobbs v. U.S. Atomic Energy Comm'n, 451 F.2d 849, 864, 171 USPQ 713, 724 (5th Cir. 1971)). One who simply provides the inventor with well-known principles or explains the state of the art without ever having "a firm and definite idea" of the claimed combination as a whole does not qualify as a joint inventor. See Hess, 106 F.2d at 981 (citing O'Reilly v. Morse, 56 U.S. (15 How.) 62, 111 (1853)). Moreover, depending on the scope of a patent's claims, one of ordinary skill in the art who simply reduced the inventor's idea to practice is not necessarily a joint inventor, even if the specification discloses that embodiment to satisfy the best mode requirement. See Sewall, 21 F.3d at 416.

Furthermore, a co-inventor need not make a contribution to every claim of a patent. See 35 U.S.C. § 116. A contribution to one claim is enough. See SmithKline Diagnostics, Inc. v.

Helena Lab. Corp., 859 F.2d 878, 888, 8 USPQ2d 1468, 1476 (Fed. Cir. 1988). Thus, the critical question for joint conception is who conceived, as that term is used in the patent law, the subject matter of the claims at issue.

35 U.S.C. § 256 provides that a co-inventor omitted from an issued patent may be added to the patent by a court "before which such matter is called in question." To show co-inventorship, however, the alleged co-inventor and co-inventors must prove their contribution to the conception of the claims by clear and convincing evidence. See Hess, 106 F.3d at 980. However, "an inventor's testimony respecting the facts surrounding a claim of derivation or priority of invention cannot, standing alone, rise to the level of clear and convincing proof." Price v. Symsek, 988 F.2d 1187, 1194, 26 USPQ2d 1031, 1036 (Fed. Cir. 1993). The rule is the same for an alleged co-inventor's testimony. See Hess, 106 F.3d at 980. Thus, an alleged co-inventor must supply evidence to corroborate his testimony. See Price, 988 F.2d at 1194. Whether the inventor's testimony has been sufficiently corroborated is evaluated under a "rule of reason" analysis. Id. at 1195. Under this analysis, "[a]n evaluation of all pertinent evidence must be made so that a sound determination of the credibility of the [alleged] inventor's story may be reached." Id.

Corroborating evidence may take many forms. Often contemporaneous documents prepared by a putative inventor serve to corroborate an inventor's testimony. See id. at 1195-96. Circumstantial evidence about the inventive process may also corroborate. See Knorr v. Pearson, 671 F.2d 1368, 1373, 213 USPQ 196, 200 (CCPA 1982) ("[S]ufficient circumstantial evidence of an independent nature can satisfy the corroboration rule."). Additionally, oral testimony of someone other than the

alleged inventor may corroborate. See Price, 988 F.2d at 1195-96.

A. Claim 33

The district court determined that Choi contributed to the conception of the subject matter of claim 33. Claim 33 (with emphasis to highlight relevant elements) reads:

> A surgical instrument for providing communication through an anatomical organ structure, comprising:
>
> means having an abutment member and shaft longitudinally accommodatable within an outer sleeve, longitudinal movement of said shaft inside said sleeve being limited by contact of said abutment member with said sleeve, said shaft having a distal end with a distal blade surface tapering into a sharp distal point, said distal blade surface being perforated along one side by an aperture, for puncturing an anatomical organ structure when subjected to force along the longitudinal axis of said shaft;
>
> means having a blunt distal bearing surface, slidably extending through said aperture, for reciprocating through said aperture while said abutment member is in stationary contact with said sleeve;
>
> means positionable between said puncturing means and said reciprocating means for biasing a distal section of said reciprocating means to

> protrude beyond said aperture and permitting said distal section of said reciprocating means to recede into said aperture when said bearing surface is subject to force along its axis . . .; and
>
> means connectible to the proximal end of said puncturing means for responding to longitudinal movement of said reciprocating means relative to said puncturing means and creating a sensible signal having one state upon recision of said distal section of said reciprocating means into said aperture and another state upon protrusion of said distal section of said reciprocating means from said aperture.

To determine whether Choi made a contribution to the conception of the subject matter of claim 33, this court must determine what Choi's contribution was and then whether that contribution's role appears in the claimed invention. If Choi in fact contributed to the invention defined by claim 33, he is a joint inventor of that claim.

Figures 18 and 19 of the '773 patent illustrate an embodiment of claim 33. These figures show a trocar blade with an aperture through which a blunt rod can extend. When the trocar blade penetrates the inner wall of a cavity, a spring releases the rod, which juts out past the end of the trocar blade and prevents the blade from cutting further. The embodiment also includes a structure that gives the surgeon aural and visual signals when the blade nears penetration.

The district court found that Yoon conceived of the use of a blunt probe. However, the court found that Choi conceived

of and thereby contributed two features contained in the embodiment shown in figures 18 and 19; first, Choi conceived of locating the blunt probe in the trocar shaft and allowing it to pass through an aperture in the blade surface; second, Choi conceived of the "means . . . for . . . creating a sensible signal."[1]

If Choi did indeed conceive of "locating the blunt probe in the shaft and allowing it to pass through an aperture in the blade surface," he contributed to the subject matter of claim 33. Claim 33 requires that the "distal blade surface" be perforated along one side by an aperture" and requires the "shaft" to be "longitudinally accommodatable within [the] outer sleeve." Properly construed, claim 33 includes the elements that Choi contributed to the invention according to the district court's findings.

In making this finding, the district court relied extensively on Choi's testimony. Choi testified that the idea of extending the blunt probe through an aperture in the trocar blade itself was his idea. To corroborate this testimony, Choi produced a series of sketches he created while working with Yoon. One sketch shows a probe inside the shaft of a trocar

---

[1] U.S. Surgical's position here is that this is a means-plus-function element, and the only corresponding structures in the specification are the two alternative electrical networks pictured in figures 5 and 30 of the '773 patent. See 35 U.S.C. § 112, ¶ 6 (1994). The parties do not dispute that Choi designed these networks. However, Ethicon argues that the corresponding structure is a switch—conceived of by Yoon. Given our resolution of the inventorship of claim 33 on other grounds, we need not address this issue.

blade, extending through an opening in the side of the end of the blade.

To rebut Choi's showing, Yoon presented a drawing dated July 1973, which disclosed elements of claim 33. The district court determined, however, that Dr. Yoon had altered this drawing. In fact, according to the district court, it had originally depicted a device from an entirely different patent. Due to its suspicious origins, the trial court rejected it as unreliable.

The court also discounted Yoon's testimony for lack of credibility. Indeed the record supports the trial court's conclusion that Yoon altered the backdated documents to make it appear that he had independently invented trocars, shields, and electronics. Moreover, Yoon's trial testimony clashed with his earlier deposition testimony. For instance, before learning of Choi's role in the case, Yoon falsely testified at his deposition that (1) he had worked with Choi as early as 1975 and (2) the sketches at issue in this case had been drawn completely by him. However, the two did not meet until 1980, and when later questioned about authorship of the documents, Yoon replied, "If I said [that] at that time, then maybe I was confused." The district court justifiably discounted Yoon's testimony.

In sum, after full consideration of the relevant evidence, the district court determined that Choi conceived part of the invention recited in claim 33. This court detects no cause to reverse this determination.

B. Claim 47

The district court also determined that Choi contributed to the conception of the subject matter of claim 47. Claim 47 (with emphasis to highlight relevant elements) reads:

> A surgical instrument for providing communication through an anatomical organ structure, comprising:
>
> means having an elongate shaft exhibiting a longitudinal axis and terminating in a sharp, distal end, for puncturing the cavity wall of an anatomical organ structure;
>
> means borne by said puncturing means distal end for converting counterforce exerted by said cavity wall against said distal end into transmissible energy;
>
> means connected to said converting means for conveying said transmissible energy toward the proximal end of said puncturing means;
>
> means having an interior bore coaxially aligned with the longitudinal axis of said shaft for receiving said puncturing means proximal end;
>
> means for biasing said puncturing means proximal end to withdraw into said interior bore;
>
> means interposed between said puncturing means proximal end and said interior bore assuming a normally protruding position for

> determining [sic: detaining[2]] and puncturing means proximal end extended from said interior cavity in opposition to said biasing means.

To determine whether Choi made a contribution to the conception of the subject matter of claim 47, this court must determine what Choi's contribution was and then construe the claim language to determine if Choi's contribution found its way into the defined invention.

Figures 34, 35, and 36 illustrate the invention in claim 47. In these embodiments, a cocked spring pulls the trocar back into a protective sheath as soon as the blade has punctured the inner wall. Release of the detaining means triggers the retracting spring action. The two detaining means disclosed in the specification are (1) a detent[3] extending radially outward from the trocar through a hole in the sheath and (2) a rod extending horizontally from the proximal end of the trocar that butts against and off-center, but slidable, bar with a hole in its center. In the case of the detent detaining means, when a sensor detects that the trocar blade has pierced the wall of the cavity, the plunger of a solenoid pushes the detent out of the hole in the

---

[2] The prosecution history plainly show that this is a typesetting error. See Response to Office Action of November 21, 1983 (filed May 21, 1984), p. 25.

[3] The district court referred to this element as a "plunger," although the '773 patent's specification very clearly refers to it as a "detent." It is the solenoid that has a plunger. See '773 patent, col. 17, lines 20-26; col. 18, lines 1-5. The district court's nomenclature is consistent, however, with one of Choi's sketches, as discussed below.

sheath. In the case of the rod detaining means, the solenoid plunger positions the bar so that the hole in its center aligns with the rod.

The district court concluded that Yoon generally invented the retractable trocar, but that Choi invented both of the detaining means disclosed in the specification. In addition to oral testimony of the parties, the district court cited Choi's sketches, one of which clearly shows the rod detaining means. However, the sketch in which the district court would find the detent detaining means appears to work differently than the embodiment described in the '773 patent. Instead of a detent that extends radially outward through a hole in the sheath, the sketch illustrates the use of the solenoid plunger itself as a detent, extending radially inward through a hole in the sheath. Thus, the record does not show that Choi contributed to the detent detaining means. Therefore, this court affirms the district court's finding that Choi contributed the rod detaining means, but determines that the trial court clearly erred in finding that Choi contributed the detent detaining means.

In this instance, however, claim 47 recites a "means . . . for [detaining]." The use of the word "means" gives rise to "a presumption that the inventor used the term advisedly to invoke the statutory mandates for means-plus-function clauses." York Prods., Inc. v. Central Tractor Farm & Family Ctr., 99 F.3d 1568, 1574, 40 USPQ2d 1619, 1623 (Fed. Cir. 1996). Although the presumption is not conclusive, see e.g., id., (construing "means" in claim without reference to section 112, paragraph 6), the means language here invokes the interpretation regimens of section 112, paragraph 6. Thus applying section 112, paragraph 6 to interpret this claim, the

language adopted the two structures in the specification to define the means for detaining.

Choi showed contribution to one of these alternative structures. The contributor of any disclosed means of a means-plus-function claim element is a joint inventor as to that claim, unless one asserting sole inventorship can show that the contribution of that means was simply a reduction to practice of the sole inventor's broader concept. See Sewall, 21 F.3d at 416 (holding that the designer of one disclosed means was not a joint inventor). Although the district court found that Yoon first conceived of a retractable trocar generally, Yoon did not show that Choi's contribution was simply a reduction to practice of the broader concept of using any detaining means commensurate with the scope of claim 47. Thus, Choi showed entitlement to the status of co-inventor for this claim as well.

C. Corroboration

As corroboration for his testimony of co-invention, Choi proffers sketches of his work. These sketches were in Yoon's possession since their creation. The parties do not dispute, however, that Choi in fact created the sketches. Instead, Yoon contends that he first disclosed the invention to Choi, who then made the sketches to illustrate what he learned from Yoon. Absent sufficient corroboration, inventorship would turn solely on a credibility contest between Yoon and Choi. The district court, however, found sufficient corroboration.

Taken together, the alleged co-inventor's testimony and the corroborating evidence must show inventorship "by clear and convincing evidence." This requirement is not to be taken lightly. Under the "rule of reason" standard for corroborating

evidence, Holmwood v. Suqavanam, 948 F.2d 1236, 1238-39, 20 USPQ2d 1712, 1714 (Fed. Cir. 1991), the trial court must consider corroborating evidence in context, make necessary credibility determinations, and assign appropriate probative weight to the evidence to determine whether clear and convincing evidence supports a claim of co-inventorship.

Accordingly, there need not be corroboration for every factual issue contested by the parties. For example, in Price, the junior party in an interference proceeding proffered drawings of his conceived invention, his affidavit that he had conceived the invention before the critical date, and an affidavit from a third person stating that she had seen one of the drawings before that time. However, the junior party lacked corroborating evidence that it was he who had created the drawings because the third party could not attribute the drawings to him. This court held that "all of the evidence put forth" should have been considered and acknowledged that "an inventor can conceivably prove prior conception by clear and convincing evidence although no one piece of evidence in and of itself establishes the prior conception." Price, 988 F.2d at 1196.

In this case, Choi's sketches show the invention. The parties agree that Choi made the sketches. The contest involves whether Choi conceived of the material in the sketches or merely drew what Yoon conceived. The district court noted many circumstantial factors further corroborating Choi's conception claim: (1) Yoon's need for a person with expertise in electronics; (2) Choi's background in electronics; (3) Yoon's proposal that he and Choi should work together to develop new products, including safety trocars; (4) their informal business relationship; (5) the length of time they worked together; (6) the absence of any pay to Choi for his work; (7) the similarity

between Choi's sketches and the patent figures; and (8) the letter in which Choi stated that he could no longer be a "member" of Yoon's business. Additionally, U.S. Surgical introduced expert testimony that some of the sketches dealt with sophisticated concepts that only an electrical engineer or technician would understand. Consequently, the district court found that Choi was presenting ideas to Yoon as the sketches were drawn, rather than the other way around.

On appeal, this court declines to reweigh the evidence. Instead, this court determines that the record shows that corroboration evidence in this case satisfies the "rule of reason." Thus, this court must only further assess whether the district court's factual conclusions, given the clear and convincing evidence standard, were clearly erroneous. Here, given the sketches, Choi's testimony, and the established circumstances, in contrast with Yoon's testimony, expressly found to lack credibility by the trial court, this court discerns no clear error.

In reaching this determination, this court has also considered alleged inconsistencies in Choi's testimony. In August 1992, U.S. Surgical's counsel first sent Choi a copy of the '773 patent. Choi circled figures and claims describing that which he claimed to have contributed. Choi circled some claims that he does not now assert to have had a role in inventing. He also did not circle claims he now claims to have co-invented. However, the district court could have reasonably found that a layman, untrained in the language of the patent law, may reasonably err in interpreting claim language. Moreover, Choi might well have confused the legal distinction between conception (which justifies a finding of inventorship) and reduction to practice (which does not). In any event, this court

affirms the district court's holding that Choi was a co-inventor of claims 33 and 47.[4]

III. ADMISSIBILITY ISSUES

Under the terms of its license agreement, U.S. Surgical gave Choi an immediate payment of $300,000. Future payments of up to $100,000 per year for ten years are contingent on U.S. Surgical's prevailing in this action. In return, Choi granted U.S. Surgical an exclusive license in "Choi's trocar related inventions." In addition, Choi agreed to testify in a proceeding to correct inventorship of the '773 patent and to "render all reasonable assistance requested by [U.S. Surgical] to defend or settle" this action. As the district court concluded, these license agreement terms do not constitute payment for testimony as a fact witness.

This court reviews matters pertaining to the admissibility of evidence under the law of the particular regional circuit where appeals from the district court would normally lie. The Second Circuit accords trial courts broad discretion to determine the admissibility of evidence. See Perry v. Ethan Allen, Inc., 115 F.3d 143, 150 (2d Cir. 1997). To warrant appellate correction, a trial court must commit an abuse of that broad discretion. See id.

A patent license agreement that binds the inventor to participate in subsequent litigation is very common. Indeed, Yoon's agreement with Ethicon contains a similar clause. This

---

[4] Ethicon does not appeal the district court's determination that Choi's claim of co-inventorship was not barred by laches or equitable estoppel.

sort of agreement simply assures the licensee that it will be able to defend the property in which it has purchased an interest.

Furthermore, a witness's pecuniary interest in the outcome of a case goes to the probative weight of testimony, not its admissibility. See, e.g., Den Norske Bank AS v. First Nat'l Bank of Boston, 75 F.3d 49, 58 (1st Cir. 1996) (holding that interests of expert witnesses who were employees of plaintiff affected the weight of their testimony, not its admissibility). The district court did not abuse its discretion by admitting Choi's testimony into evidence, subject to cross-examination that might expose Choi's bias.

IV. SCOPE OF THE CHOI-U.S. SURGICAL LICENSE

Questions of patent ownership are distinct from questions of inventorship. See Beech Aircraft Corp. v. EDO Corp., 990 F.2d 1237, 1248, 26 USPQ2d 1572, 1582 (Fed. Cir. 1993). In accordance with this principle, this court has nonetheless noted that "an invention presumptively belongs to its creator." Teets v. Chromalloy Gas Turbine Corp., 83 F.3d 403, 406, 38 USPQ2d 1695, 1697 (Fed. Cir.), cert. denied, 117 S. Ct. 513 (1996).

Indeed, in the context of joint inventorship, each co-inventor presumptively[5] owns a pro rata undivided interest in the entire patent, no matter what their respective contributions. Several provisions of the Patent Act combine to dictate this rule.

---

[5] Ethicon does not claim that Choi had a contractual or other duty to assign his patent rights to Yoon.

35 U.S.C. § 116, as amended in 1984,[6] states that a joint inventor need not make a contribution "to the subject matter of every claim of the patent." In amending section 116 as to joint inventorship, Congress did not make corresponding modifications as to joint ownership. For example, section 261 continues to provide that "patents shall have the attributes of personal property." This provision suggests that property rights, including ownership, attach to patents as a whole, not individual claims. Moreover, section 262 continues to speak of "joint owners of a patent," not joint owners of a claim. Thus, a joint inventor as to even one claim enjoys a presumption of ownership in the entire patent.

This rule presents the prospect that a co-inventor of only one claim might gain entitlement to ownership of a patent with dozens of claims. As noted, the Patent Act accounts for that occurrence: "Inventors may apply for a patent jointly even though . . . each did not make a contribution to the subject matter of every claim." 35 U.S.C. § 116 (emphasis added). Thus, where inventors choose to cooperate in the inventive process, their joint inventions may become joint property without some express agreement to the contrary. In this case, Yoon must now effectively share with Choi ownership of all the claims, even those which he invented by himself. Thus, Choi had the power to license rights in the entire patent.

---

[6] The 1984 amendments apply here. The Patent Law Amendments Act of 1984 states that with certain exceptions "the amendments made by this Act . . . shall apply to all United States patents granted before, on, or after the date of enactment [Nov. 8, 1984]." Pub. L. No. 98-622, 98 Stat. 3383, § 106(a) (1984); see also SmithKline Diagnostics, 859 F.2d at 888-89.

This court next examines the extent to which Choi exercised that power. This court reviews the interpretation of contractual language, including license agreements, as a question of law. See Intel Corp. v. ULSI Sys. Tech., Inc., 995 F.2d 1566, 1569, 27 USPQ2d 1136, 1138 (Fed. Cir. 1993). State law, in this case Connecticut law, controls in matters of contract interpretation. Thus, in making its review, this court adopts the ordinary and common meaning of contract terms whenever possible. See Sturman v. Socha, 463 A.2d 527, 532 (Conn. 1983).

The license which Choi granted to U.S. Surgical states:

> Choi hereby grants to U.S. Surgical an exclusive, worldwide right and license to make, have made, use, market and sell Choi's trocar related inventions, including trocars having shields and those described and/or claimed in the '773 patent. This license is retroactive to the date on which the '773 patent issued.

U.S. Surgical reads this language to cover all trocars "described and/or claimed int he '773 patent," encompassing the entire '773 patent and more. Ethicon reads the same language as limited to "Choi's trocar related inventions," which comprise only his contributions to claims 33 and 47 of the '773 patent.

The meaning of the phrase "including trocars . . . described and/or claimed in the '773 patent" depends on the meaning of the word "including." If construed to merely clarify the meaning of "trocar related inventions," the phrase it modifies, then "including" could limit the scope of Choi's grant. "Including," however, can also operate as a phrase of addition.

Under this broader reading, the phrase "trocar related inventions" covers more than just the material specified in the "including" phrase.

If possible, this court must view a single provision of a contract in the way that gives meaning to -- and provides internal harmony among -- all parts of the contract. See Barnard v. Barnard, 570 A.2d 690, 696 (Conn. 1990). Read in context, the "including" phrase is a phrase of addition, not a limitation on the scope of "trocar related inventions." For example, the agreement states that Choi "has not . . . and shall not, grant to any other person . . . any right or license to make, use or sell any of his trocar related inventions or any device described or within the scope of any of the claims of the '773 patent." (emphasis added). In addition, the agreement states, "Choi hereby grants to [U.S. Surgical] the sole right to sue any infringer of the '773 patent. . . ." If the scope of the license did not encompass all of Choi's rights as a joint owner of the '773 patent, these supplementary provisions were inexplicably much too broad. Rather, in context, Choi's grant meant to license all of his rights as a joint owner under the '773 patent.

Thus, the district court's interpretation of the Choi license was correct as a matter of law.

V. RETROACTIVE LICENSURE

Finally, Ethicon argues that even if the license agreement is enforceable as to the entire patent, it should still be allowed to proceed against U.S. Surgical to recover damages for pre-license infringement. Ethicon contends that to hold otherwise would contravene the decision in Schering Corp. v. Roussel-UCLAF SA, 104 F.3d 341, 41 USPQ2d 1359 (Fed. Cir. 1997).

This court agrees with Ethicon's challenge to the retroactive effect of Choi's license, but must affirm the dismissal of the case based on Choi's refusal to join as plaintiff in the suit.

In Schering, Roussel and Schering, the two co-owners of the patent in suit, entered into an agreement whereby each granted the other a unilateral right to sue third parties for infringement. Schering then sued to enjoin Zeneca, Inc. from proceeding with planned sales of an allegedly infringing product. Schering joined Roussel in the action as an involuntary plaintiff. Two weeks later, Roussel granted Zeneca a license to practice the patented invention. The district court dismissed Schering's suit. Schering appealed.

On appeal, Schering argued that because Roussel had granted Schering a unilateral right to sue, Roussel could not now grant a license to Zeneca. Schering contended that one grant was incompatible with the other. The court rejected Schering's argument, reasoning that "[t]he right to license and the unilateral right to sue are . . . not incompatible, and the granting of one does not necessarily imply the relinquishment of the other." Id. at 345. This court acknowledged the critical distinction that a license to a third party only operates prospectively. Absent agreement to the contrary, a co-owner cannot grant a release of another co-owner's right to accrued damages. Consequently, a co-owner who has granted a unilateral right to sue to another co-owner may also license a third party. Nevertheless, by virtue of the unilateral right to sue, the second co-owner can still force the first co-owner to join an infringement action against the licensee to recover the second co-owner's accrued damages for past infringement. Thus, a prospective license is not per se incompatible with a unilateral right to sue, and, barring any other applicable contractual

provision, Schering could not prevent Roussel from granting a license to Zeneca:[7]

> [T]he grant of a license by one co-owner cannot deprive the other co-owner of the right to sue for accrued damages for past infringement. That would require a release, not a license, and the rights of a patent co-owner, absent agreement to the contrary, do not extend to granting a release that would defeat an action by other co-owners to recover damages for past infringement.

Id. at 345.

Thus, Choi's "retroactive license" to U.S. Surgical attempts to operate as the combination of a release and a prospective license.[8] Nonetheless Choi cannot release U.S.

---

[7] A twist provided by the facts of Schering was that Schering was seeking only prospective relief. Therefore, the Schering court's distinction evaporated under the specific facts of the case -- that is, until Schering alleged for the first time on appeal that some of Zeneca's pre-license conduct constituted infringement. The Schering court remanded, in part, to allow Schering to pursue these potential pre-license infringement claims. See Schering, 104 F.3d at 347.

[8] Although "retroactive licenses" of patent rights have been enforced by the courts without specifically referring to them in this way, all of these cases have involved "retroactive licenses" granted by a sole owner. See, e.g., Studiengesellschaft Kohle, m.b.H. v. Hercules, Inc., 105 F.3d 629, 41 USPQ2d 1518 (Fed. Cir. 1997).

Surgical from its liability for past accrued damages to Ethicon, only from liability to himself.

One more settled principle governs this case, however. An action for infringement must join as plaintiffs all co-owners. See Waterman v. Mackenzie, 138 U.S. 252, 255 (1891) ("The patentee or his assigns may, by instrument in writing, assign, grant, and convey, either (1) the whole patent. . .; or (2) an undivided part or share of that exclusive right; or (3) the exclusive right under the patent within and throughout a specified part of the United States. A transfer of either of these three kinds of interests is an assignment, properly speaking, and vests in the assignee a title in so much of the patent itself, with a right to sue infringers. In the second case, jointly with the assignor. In the first and third cases, in the name of the assignee alone." (emphasis added)); Moore v. Marsh, 74 U.S. 515, 520 (1868) ("[W]here [an] assignment is of an undivided part of the patent, the action should be brought for every infringement committed subsequent to the assignment, in the joint names of the patentee and assignee, as representing the entire interest.").

Further, as a matter of substantive patent law, all co-owners must ordinarily consent to join as plaintiffs in an infringement suit.[9] Consequently, "one co-owner has the right

---

[9] Two established exceptions exist. First, when any patent owner has granted an exclusive license, he stands in a relationship of trust to his licensee and must permit the licensee to sue in his name. See Independent Wireless Telegraph Co. v. Radio Corp. of Am., 269 U.S. 459, 469 (1926). Second, the obligation may arise by contract among co-owners. If, by agreement, a co-owner waives his right to refuse to join suit, his co-owners may subsequently force him to join in a suit against

to impede the other co-owner's ability to sue infringers by refusing to voluntarily join in such a suit." Schering, 104 F.3d at 345.

This rule finds support in section 262 of the Patent Act:

> In the absence of any agreement to the contrary, each of the joint owners of a patent may make, use, offer to sell, or sell the patented invention within the United States, or import the patented invention into the United States, without the consent of and without accounting to the other owners.

This freedom to exploit the patent without a duty to account to other co-owners also allows co-owners to freely license others to exploit the patent without the consent of other co-owners. Schering, 104 F.3d at 344 ("Each co-owner's ownership rights carry with them the right to license others, a right that also does not require the consent of any other co-owner."). Thus, the congressional policy expressed by section 262 is that patent co-owners are "at the mercy of each other." Willingham v. Lawton, 555 F.2d 1340, 1344, 194 USPQ 249, 252 (6th Cir. 1977).

Although in this case, the result is effectively no different than if Choi could grant a release to U.S. Surgical of any liability to Ethicon, it should be emphasized that the principle that governs this case is not incompatible with the principle enunciated in Schering. In Schering, this court noted that the granting of a unilateral right to sue is not incompatible with the

---

infringers. See Willingham v. Lawton, 555 F.2d 1340, 1344-45, 194 USPQ 249, 252 (6th Cir. 1977).

right to grant a license. Similarly, this court notes that the inability to grant a release is not incompatible with the right to refuse to consent to an infringement suit. It is true that, in some circumstances, the decision of one co-owner to not join an infringement suit may have the same effect as granting a release, but this is not true in all cases. For example, when co-owners have granted each other a unilateral right to sue, each has waived his right not to join an infringement suit, and either of them can force the other to join a suit to collect accrued infringement damages.

Because Choi did not consent to an infringement suit against U.S. Surgical and indeed can no longer consent due to his grant of an exclusive license with its accompanying "right to sue," Ethicon's complaint lacks the participation of a co-owner of the patent. Accordingly, this court must order dismissal of this suit.

VI. CONCLUSION

Accordingly, the judgment of the United States District Court for the District of Connecticut is affirmed.

COSTS

Each party shall bear its own costs.

AFFIRMED

United States Court of Appeals for the Federal Circuit

97-1269

ETHICON, INC. And
INBAE YOON, M.D.,

Plaintiffs-Appellants,

v.

UNITED STATES SURGICAL CORPORATION
and YOUNG JAE CHOI,

Defendants-Appellees.

NEWMAN, Circuit Judge, dissenting.

I respectfully dissent, for whether or not Mr. Choi made an inventive contribution to two of the fifty-five claims of the '773 patent, he is not a joint owner of the other fifty-three claims of the patent. Neither the law of joint invention nor the law of property so requires, and indeed these laws mandate otherwise.

The district court found that Mr. Choi made a contribution to two claims of the '773 patent. Although precedent would as readily place Mr. Choi's work in the category whereby "an inventor 'may use the services, ideas and aid of others in the process of perfecting his invention without losing his right to a patent,'" Shatterproof Glass Corp. v. Libbey-Owens Ford Co., 758 F.2d 613, 624, 225 USPQ 634, 641 (Fed. Cir. 1985) (quoting Hobbs v. United States Atomic

Energy Comm'n, 451 F.2d 849, 864, 171 USPQ 713, 724 (5th Cir. 1971)), the district court's finding as to the two claims is not clearly in error. That conclusion is not my primary concern. My primary concern is with the failure of the court to recognize, in deciding ownership rights, the effect on these rights of the 1984 amendment of 35 U.S.C. §116, which markedly changed the law of naming inventors on patents, and authorized the "joint invention" here adjudicated.

Before the statutory change made in 1984 Mr. Choi could not have been named a "joint inventor" of the '773 patent, for he had not jointly conceived and contributed to the entire invention. It is not disputed that his contribution is limited to elements of two of the fifty-five patent claims. Such a person was not a "joint inventor" under pre-1984 law. That law required that joint invention be the "simultaneous production of the genius and labor of both parties." Stearns v. Barrett, 22 F. Cas. 1175, 1181 (C.C.D. Mass. 1816) (Story, J.). Joint ownership, in turn, was based on this principle of joint invention.

Those assistants who worked on an invention at the behest of the originator of the idea did not achieve the legal status of "joint inventor." Having no legal status as an inventor, such assistants acquired no property right in the invention by virtue of their contributions. See Collar Co. v. Van Dusen, 90 U.S. (23 Wall.) 530, 563-64 (1874) (ancillary discoveries of assistant belong to person who conceived original principle unless they "constitute the whole substance of the improvement"); Agawam Co. v. Jordan, 74 U.S. (7 Wall.) 583, 602-4 (1868) (same). In Agawam the Court explained that one less than a true joint inventor was forbidden from "appropriat[ing] to himself the entire result of the ingenuity and

toil of the originator, or put[ing] it in the power of any subsequent infringer to defeat the patent." 74 U.S. at 604.

The 1984 amendment of 35 U.S.C. §118 permitted the naming as an inventor of all persons who assisted in the development of an idea, or parts thereof, that originated with others. Such naming, however, does not automatically endow the assistant with full and common ownership of the entire invention, including the contributions of all others including the originator. That is not a reasonable consequence of the change in the law of naming inventors that occurred in 1984.

A. The Law of Joint Invention

The purpose of the amendment of §116 was to remedy the increasing technical problems arising in team research, for which existing law, deemed to require simultaneous conception as well as shared contribution by each named inventor to every claim, was producing pitfalls for patentees, to no public purpose. As stated in its legislative history, the amendment to et U.S.C. §116 "recognizes the realities of modern team research." 130 Cong. Rec. 28,069-71 (1984) (statement of Rep. Kastenmeier).

Before 1984 precedent did not permit naming as an inventor a person who did not share in the conception of the invention and who did not contribute to all of the claims of the patent. See In re Sarett, 327 F.2d 1005, 1010 n.7, 140 USPQ 474, 479 n.7 (CCPA 1964) ("It should be clear that the patent could not legally contain a claim to Sarett's sole invention under existing law because it would not have been the invention of the joint patentees." (emphases in original)); In re Hamilton, 37 F.2d 758, 759, op. den. reh'g, 38 F.2d 889, 890 (CCPA 1930) (joint

patent could not issue on portion of invention made by single inventor). If different persons made an inventive contribution to various parts of an invention or to different claims of a patent, the legalistic problems that arose were not readily soluble, even by the complex, expensive, and often confusing expedient of filing separate patent applications on separate claims.

The progress of technology exacerbated the inventorship problems. Patents were invalidated simply because all of the named inventors did not contribute to all the claims; and patents were also invalidated when there were contributors to some of the claims who were not named. See Jamesbury Corp. v. United States, 518 F.2d 1384, 1395, 187 USPQ 720 (Ct.Cl. 1975) (inclusion of more or less than the true inventors renders patent void and invalid); Amax Fly Ash Corp. v. United States, 514 F.2d 1041, 1050, 182 USPQ 210, 217 (Ct.Cl. 1975) ("Where more or less than the true inventors are named, the patent is void."); Hobbs, 451 F.2d at 864-65, 171 USPQ at 724 (patent on joint invention issued to one inventor is invalid); Iowa State Univ. Research Found., Inc. v. Sperry Rand Corp., 444 F.2d 406, 408, 170 USPQ 374, 376 (4th Cir. 1971) ("the law has been strictly construed to grant patents only to the true inventors"); Pointer v. Six Wheel Corp., 177 F.2d 153, 157-58, 83 USPQ 43, 46-48 (9th Cir. 1949) (patent issued to only one of the inventors is void); Shreckhise v. Ritchie, 160 F.2d 593, 595, 73 USPQ 138, 140-41 (4th Cir. 1947) (same, citing cases); Thropp & Sons Co. v. DeLaski & Thropp Circular Woven Tire Co., 226 F. 941, 947-48 (3d Cir. 1915) (joint patent on invention of one is invalid as to all); Rival Mfg. Co. v. Dazey Prods. Co., 358 F. Supp. 91, 101, 177 USPQ 432, 439-40 (W.D. Mo. 1973) (patent issued to one is invalid for failure to join others); Stewart v. Tenk, 32 F. 665, 666 (C.C.S.D. Ill. 1887) (claim to sole invention is invalid in joint patent); Worden

v. Fisher, 11 F. 505, 508-9 (C.C.E.D. Mich. 1882) (when two persons invent distinct parts of machine they should take out separate patents). Indeed, at the time the '773 patent application was filed in 1982, most practitioners believed that a separate application was required if it was desired to present, for example, the two claims that contain Mr. Choi's contribution. See generally John F. Pearne, Must Each Inventor Named in a Patent Application Have Made an Inventive Contribution to Each of the Claims Thereof?, 58 J. Pat. Off. Soc'y 205, (1976) (discussing then-proposed amendments to §116).

As team research increased with the growth of technology-based industry, so did the dilemma, for the rules of joint inventorship were not readily adaptable to the development of complex inventions. It became apparent that legislative remedy was needed. The amendment of 35 U.S.C. §116 provided a simple solution to a complex problem:

> **§116 [second sentence]** Inventors may apply for a patent jointly even though (1) they did not physically work together or at the same time, (2) each did not make the same type or amount of contribution, or (3) each did not make a contribution to the subject matter of every claim of the patent.

Pub. L. 98-622, §104, 98 Stat. 3384, Nov. 8, 1984. The amendment identified the three major pitfalls that had arisen, and removed them.

This amendment did not also deal with the laws of patent ownership, and did not automatically convey ownership of the entire patent to everyone who could now be named as an

inventor, whatever the contribution. The amendment simply permitted persons to be named on the patent document, whether as minor contributors to a subordinate embodiment, or full partners in the creation and development of the invention. The ownership relationships among the persons who, under §116, could now be recognized as contributors to the invention, is irrelevant to the purpose of the amendment of §116, and to its consequences. Section 116 has nothing to do with patent ownership.

B. The Law of Joint Ownership

The pre-1984 rule of joint ownership of joint inventions can be readily understood in its historical context, for a legally cognizable "joint invention" required mutuality of interaction and a real partnership in the creation and development of the invention. On this foundation, a "joint inventor" was also, justly and legally, an equal owner of the idea and of any patent thereon. Pointer, 177 F.2d at 157-58, 83 USPQ at 46-48 ("as the cases just cited show clearly, in order that an invention be truly called a joint invention, it must appear by clear and convincing proof that the two inventors collaborated in evolving the patented device"); see 1 Donald S. Chisum, Chisum on Patents §202[2] & n.2 (rel. May 1987) ("Only where the same single, unitary idea of means if the product of two or more minds, working pari passu, and in communication with each other, is the conception truly joint and the result a joint invention," quoting 1 William C. Robinson, The Law of Patents for Useful Inventions §396 (1890)).

The law of patent ownership has its roots in the common law of property -- although a patent has its own peculiar character, for it deals with intangibles. See Crown Die & Tool

Co. v. Nye Tool & Machine Works, 261 U.S. 24, 40 (1923) (a patent is a creature of statute); Gayler v. Wilder, 51 U.S. (10 How.) 477, 494 (1850). Certain incidents of patent ownership have been created or clarified by statute, see 35 U.S.C. §262, yet the common law provided the basic rules, as manifested in the concepts of tenancy in common and undivided interests that courts have drawn upon in patent ownership disputes.

The jurisprudence governing property interests is generally a matter of state law. Even when the property is the creation of federal statute, private rights are usually defined by state laws of property. This has long been recognized with respect to patent ownership and transfers. See Jim Arnold Corp. v. Hydrotech Sys., Inc., 109 F.2d 1567, 1572, 42 USPQ2d 1119, 1123 (Fed. Cir. 1997) ("the question of who owns the patent right and on what terms typically is a question exclusively for state courts"); Roach v. Crouch, 524 N.W.2d 400, 33 USPQ2d 1361 (Iowa 1994) (patent ownership issue property triable in state court). It is equally established that inventorship and patent ownership are separate issues. Beech Aircraft Corp. v. EDO Corp., 990 F.2d 1237, 1248-49, 26 USPQ2d 1572, 1582 (Fed. Cir. 1993).

Most of the disputes concerning patent ownership that reached the Supreme Court dealt not with joint invention, but assignments and other transfers. The oft-cited case of Waterman v. MacKenzie, 138 U.S. 252 (1891) dealt with a dispute among the inventor's spouse and various assignees concerning ownership of the fountain pen patent, not inventorship. Occasionally an issue of ownership of patent property arose based on whether the claimant actually shared fully in the creation of the invention. In such cases, as cited supra, the decision on "joint invention" also decided the issue of

ownership, for a person who had fully shared in the creation of the invention was deemed to be a joint owner of the entire patent property. On this premise each joint inventor was deemed to occupy the entirety of the patented subject matter, on a legal theory of tenancy in common. See 7 Richard R. Powell, Powell on Real Property ¶602[5] (1997) ("undivided fractional shares held by tenants in common are usually equal and are presumed equal unless circumstances indicate otherwise"). As patent property became viewed more precisely as personal property, see 35 U.S.C. §261, the concept of tenancy in common was adjusted to that of an undivided interest, although with no substantial change in legal rights.

After the major change that the 1984 amendment to §116 made in "joint invention," by authorizing the naming of any contributor to any claim of a patent, the legal premise that each named person had made a full and equal contribution to the entire patented invention became obsolete. See SmithKline Diagnostics, Inc. v. Helena Labs Corp., 859 F.2d 878, 888-89, 8 USPQ2d 1468, 1477 (Fed. Cir. 1988) (collecting cases). It is not an implementation of the common law of property, or its statutory embodiments, to treat all persons, however minor their contribution, as full owners of the entire property as a matter of law. The law had never given a contributor to a minor portion of an invention a full share in the originator's patent.

By amending §116 in order to remove an antiquated pitfall whereby patents were being unjustly invalidated, the legislators surely did not intend to create another inequity. Apparently no one foresaw that judges might routinely transfer pre-1984 ownership concepts into the changed inventorship law. I have come upon no discussion of this anomaly in various scholarly articles on the amended §116. See, e.g., David W.

Carstens, Joint Inventorship under 35 U.S.C. §116, 73 J. Pat. Off. Soc'y 616 (1991) (discussing amended §116); W. Fritz Fasse, The Muddy Metaphysics of Joint Inventorship: Cleaning Up After the 1984 Amendments to 35 U.S.C. §116, 5 Harv. J.L. & Tech. 153 (1992), at 201-2 (citing PTO rules implementing amended §116 and referring to the possibility of lack of common ownership pf the subject matter, in the sense of assignment obligations of separately-employed inventors to distinct employers, yet overlooking other divided ownership problems).

In the case at bar, the district court recognized that Dr. Yoon originated the fundamental concept and the major aspects of its implementation. The court, however, construed the law as requiring that since Mr. Choi was named as a "joint inventor" (in accordance with the retroactivity legislated for the amendment to §116) he automatically owned an undivided interest in the entire patent, and had the unencumbered and unfettered right to alienate an interest in the entire patent. Thus Mr. Choi, who would not pass the pre-1984 test of joint inventor, was nonetheless awarded full property rights in the entire invention and patent, as if he had been a true joint inventor of all the claims.

The panel majority, confirming this error, holds that Mr. Choi's contribution to two claims means and requires that Yoon "must now effectively share with Choi ownership of all the claims, even those which he invented by himself." That is incorrect. As I have discussed the law of shared ownership was founded on shared invention, a situation that admittedly does not here prevail. Whether or not Mr. Choi is now properly named under §116 because of his contribution to two claims, he

is not a joint owner[1] and he does not have the right to grant a license under all fifty-five claims. No theory of the law of property supports such a distortion of ownership rights. Thus I must, respectfully, dissent from the decision of the panel majority.

C. Issues of Joinder, Rule 19

The panel majority holds that although Mr. Choi's grant of a license under all fifty-five claims of the '773 patent does not have retroactive effect and thus does not relieve U.S. Surgical of liability for past infringement, Dr. Yoon is powerless to recover for past infringement because Mr. Choi as joint inventor refuses to join in the suit. Precedent and the Federal Rules do not support this ruling. Schering Corp. & Roussel-UCLAF S.A. v. Zeneca, Inc., 104 F.3d 341, 41 USPQ2d 1359 (Fed. Cir. 1997), relied on by the panel majority, does not bar Dr. Yoon's suit for past infringement and does not bar the joinder of Mr. Choi as an involuntary party in accordance with Fed. R. Civ. P. 19. Nor do Waterman v. Mackenzie, 138 U.S. at 255, Moore

---

[1] There may indeed be a need for determination of the respective interests of Dr. Yoon and Mr. Choi. Dr. Yoon's attempt to divide the '773 patent by reissue, although rebuffed by the Patent Office because of the ongoing litigation, would have placed the claims to which Mr. Choi contributed into a separate patent, in accordance with the practice when this patent application was filed. Dividing the patent claims would comport with common law practices. See Real Property ¶607[1] (discussing "inherent right to compel partition", citing state laws); see, e.g., Hamilton v. Hamilton, 597 A.2d 856, 859-60 (Del. Fam. Ct. 1990) ("right of the co-tenant to partition is almost absolute").

v. Marsh, 74 U.S. 515, 520 (1868), or the other cases cited by the majority. There is no barrier to the involuntary joinder of a joint inventor and/or co-owner under Rule 19, if such is needed to bring before the court all persons deemed necessary to the suit. See also Howes v. Medical Components, Inc., 698 F. Supp. 574, 576 (E.D. Pa. 1988) ("Rule 19 'makes inappropriate any contention that patent co-owners are per se indispensable in infringement suits'"). Further, Mr. Choi is already before the court as a party, having voluntarily intervened, by general appearance.

Thus I must also dissent from this ruling of my colleagues.

United States Court of Appeals for the Federal Circuit

ORDER

A combined petition for rehearing and suggestion for rehearing in banc having been filed by the APPELLANT, and a response thereto having been invited by the court and filed by the APPELLEE, and the petition for rehearing having been referred to the panel that heard the appeal, and thereafter the suggestion for rehearing in banc and response having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the suggestion for rehearing in banc be, and the same hereby is, DECLINED.

The mandate of the court will issue on April 8, 1998.

INTERNATIONAL NUTRITION COMPANY filed an amicus curiae brief.

FOR THE COURT,
JAN HORBALY, CLERK

Dated: April 1, 1998

By /s/
Alex Van Veen
Staff Law Clerk

cc: DAVID F. DOBBINS
HARVEY ZURZWEIL

NORMAN ZIVIN

ETHICON INC. V. U S SURGICAL CORP, 97-1269
(DC - 89-386)

Note: Pursuant to Fed. Cir. R. 47.6, this order is not citable as precedent. It is a public record.

UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT

ETHICON, INC. and
INBAE YOON, M.D.,

Plaintiffs,

V.

UNITED STATES SURGICAL
CORPORATION and
YOUNG JAE CHOI,

Defendants.

CASE NO. B:89CV386 (RNC)

RULING AND ORDER ON DEFENDANTS' MOTION TO DISMISS

Defendant United States Surgical Corporation (USSC) and intervenor-defendant Young Jae Choi have moved to dismiss the complaint of plaintiffs Ethicon, Inc. and Inbae Yoon, M.D., which charges USSC with infringing U.S. Patent No. 4,535,773 (the '773 Patent). The motion is based on the court's order granting USSC's motion to correct the '773 patent to add Choi as a coinventor, Choi having previously granted USSC an exclusive license, retroactive to the date the '773 patent was issued to Yoon, to make and sell the inventions covered by the patent. Ethicon, Inc. v. U. S. Surgical Corp., 937 F. Supp. 1018 (D. Conn. 1996).

Plaintiffs oppose dismissal of their complaint on the grounds that (1) Choi's licensing agreement with USSC does not encompass the two claims of the patent USSC is charged with infringing; (2) dismissal of the complaint would be inequitable because Choi is not a coinventor of those two claims; and (3) a co-owner's grant of a retroactive license does not protect the licensee against liability to another co-owner for past infringement.

After careful consideration of the parties' briefs and oral arguments, I conclude that dismissal is appropriate.

The terms of the agreement between Choi and USSC reflect a mutual intention to create the broadest possible license. Plaintiffs' contention that the agreement should be interpreted to encompass fewer than all the claims of the '773 patent contradicts their own previous position in this litigation, advanced numerous times in writing, that the agreement encompasses all of Choi's rights under the patent. Moreover, plaintiffs' revisionist interpretation is contrary to Choi's unequivocal testimony, both in his affidavit and at the hearing on the motion to dismiss, that he intended to license all his rights under the '773 patent to USSC. Given Choi's testimony, no reasonable person could conclude that his agreement with USSC covers less than all his rights.

Dismissal of the complaint based on Choi's licensing agreement with USSC does not result in injustice to either plaintiff. Yoon argues that giving effect to Choi's agreement with USSC would be unjust because, had Bushnell known about Choi's inventive contributions before he filed the application for the '773 patent, he would have deleted the claims as to which Choi was arguably a coinventor. See Pls.' Mem. In Opp'n to

Defs.' Mot. for J. ("Pls.' Mem.") at 17-18. However, the reason Bushnell didn't know about Choi's inventive contributions is that Yoon didn't tell him. Yoon claimed the benefit of Choi's inventive contributions while causing Bushnell to believe that any contribution Choi might have made was limited to that of a draftsman. See Ethicon, 937 F. Sup. at 1023.

Yoon's failure to disclose Choi as a coinventor was a breach of his informal partnership agreement with Choi, which governed their collaboration on the safety trocar project. See Ethicon, 937 F. Supp. at 1022. Pursuant to that agreement, Yoon had a duty to inform Choi of his intention to file a patent application and to share any profits on any patentable product. Yoon's breach deprived Choi of an opportunity to assert and protect his interest in the matter before the application was filed and the patent was issued. Id. at 1038. Equity will not aid a wrongdoer whose predicament is of his own making, as Yoon's is here.

Ethicon argues that giving effect to Choi's agreement with USSC would undermine the value of its investment in safety-shielded trocars. See Pls.' Mem. at 19. However, Ethicon will be able to continue to sell safety-shielded trocars, which have already accounted for more than $300 million in revenues for the company. See Defs.' Mem. In Further Support of M. For J. at 29.

Turning to the plaintiffs' remaining argument in opposition to the motion to dismiss, it is well-settled that, in the absence of an agreement to the contrary, one co-owner of the patent cannot sue a third party for infringement unless all other co-owners of the patent voluntarily join the suit. See Cilco, Inc. v. Copeland Intralenses, Inc., 614 F. Supp. 431, 434 (S.D.N.Y.

1985) (co-owner cannot be made involuntary plaintiff in infringement suit unless it has previously agreed to give other co-owner unilateral right to sue). In the absence of such an agreement between Yoon and Choi, Choi can protect USSC against plaintiffs' infringement suit simply by declining to consent to further prosecution of the suit. Plaintiffs cite no authority that would permit them to proceed with their suit against USSC without Choi's consent.[1]

Plaintiffs argue that allowing Choi to deprive them of a right to sue USSC for accrued damages for past infringement would be contrary to the Federal Circuit's recent decision in Schering Corp. v. Zeneca Inc., No. 96-1246, 1997 WL 4607 (Fed. Cir. Jan. 8, 1997).[2] However, that case is clearly

---

[1] Plaintiffs cite Fed. R. Civ. P. 19 for the proposition that a nonconsenting co-owner can be joined as an involuntary plaintiff. However, they do not deny that, as a matter of substantive law, a co-owner of a patent cannot sue for infringement without the consent of all other co-owners.

[2] Plaintiffs point to the following language in Schering:

> [T]he grant of a license by one co-owner cannot deprive the other co-owner of the right to sue for accrued damages for past infringement. That would require a release, not a license, and the rights of a patent co-owner, absent agreement to the contrary, do not extend to granting a release that would defeat an action by other co-owners to recover damages for past infringement. See Lalance & Grosjean Mfg. Co. v. Haberman Mfg. Co., 107 F. 487 (C.C.S.D.N.Y. 1901); Lalance & Grosjean Mfg. Co. v. Haberman Mfg. Co., 93

distinguishable. The issue in Schering was whether a unilateral right to sue granted by a co-ownership agreement limited the right of either co-owner to license third parties. The court did not address the issue whether, in the absence of such an agreement, one co-owner may sue a third party for infringement without the consent of another co-owner. Indeed, the court noted that, as a general proposition, "unless the co-owner has given up these rights through an 'agreement to the contrary,' 35 U.S.C. § 262, the co-owner may not be prohibited from exploiting its rights in the patent, including the right to grant licenses to third parties on whatever conditions the co-owner chooses." Id. at *4.[3]

Permitting Choi to deprive Ethicon and Yoon of their claim against USSC for patent infringement is arguably inconsistent with the public interest in promoting investment in

---

F. 197, 198-99 (C.C.S.C.N.Y. 1899) (one co-owner lacks "the power . . . to destroy the other's accrued right to damages").

Id. a *4.

[3] Plaintiffs' reliance on Lalance & Grosjean Mfg. Co. v. Haberman Mfg. Co., 107 F. 487 (C.C.S.D.N.Y. 1901), and Molinari v. Rockwell Int'l, No. 75-169 (D. Del. Oct. 21, 1977) is similarly misplaced. Both cases involved co-owners who jointly pursued infringement litigation. In each case, one co-owner sought to limit recovery by the other, either by reaching an independent settlement (Lalance) or by granting a retroactive license to the allged infringer (Molinari). In both instances, the courts concluded that the agreement to pursue the infringement litigation jointly precluded one co-owner from limiting the right of the other co-owner to damages for infringement.

patented inventions. Cf. Merchant v. Levy, 92 F.3d 41, 57 (2d Cir. 1996) (Newman, J.) (dismissing complaint for declaration of copyright co-ownership based on statute of limitations "promotes principles of repose integral to a properly functioning copyright market.") However, 35 U.S.C. § 256 does not limit the time during which the inventorship of an issued patent can be corrected by a court. See Advanced Cardiovascular Systems, Inc. v. SciMed Life Systems, Inc., 988 F.2d 1157, 1162 (Fed. Cir. 1993). "Section 256 thus serves the public policy of preserving property rights from avoidable forfeiture. See Henderson v. Carbondale Coal & Coke Co., 140 U.S. 25, 33 (1891) ('[F]orfeitures are never favored. Equity always leans against them, and only decrees in their favor when there is full, clear and strict proof of a legal right thereto.')." Stark v. Advanced Magnetics, Inc., 29 F.3d 1570, 1573 (Fed. Cir. 1994). By preserving the interests of omitted coinventors against such forfeiture, § 256 encourages joint inventorship and full disclosure to the Patent and Trademark Office.

Accordingly, defendants' motion for entry of a judgment dismissing the complaint if hereby granted.

So ordered.

Dated at Hartford, Connecticut this 10th day of February 1997.

/s/

Robert N. Chatigny
United States District Judge

UNITED STATES DISTRICT COURT

DISTRICT OF CONNECTICUT

ETHICON, INC. and INBAE YOON, M.D. Plaintiffs,	:	
v.	:	CASE NO. 5:89CV00386
UNITED STATES SURGICAL CORPORATION, Defendant,	:	
and YOUNG JAE CHOI, Intervenor-defendant.	:	

RULING ON DEFENDANTS' MOTION TO CORRECT INVENTORSHIP

This is a patent infringement case brought by Inbae Yoon, M.D., the sole inventor named in the patent, and his exclusive licensee, Ethicon, Inc., against defendant United States Surgical Corporation. The case is before me on a motion by U.S. Surgical and intervenor-defendant Young Jae Choi to correct the patent to add Choi as a coinventor pursuant to 35 U.S.C. § 256. Alternatively, U.S. Surgical seeks a declaration that the patent is unenforceable due to inequitable conduct before the Patent and Trademark Office.[1]

---

[1] U.S. Surgical contends that Yoon engaged in inequitable conduct before the PTO by falsely swearing that he

A lengthy evidentiary hearing has been held on the numerous factual issues presented by the parties' inventorship dispute. See Ethicon, Inc. v. United States Surgical Corp., 921 F.Supp. 901 (D.Conn. 1995) (holding that plaintiffs not entitled to jury trial). Proposed findings of fact and conclusions of law have been submitted by the parties, along with post-hearing briefs.

Courts are reluctant to order correction of the inventorship of patents, especially when misjoinder or nonjoinder of inventors is raised in response to an infringement claim. Nevertheless, after careful consideration of all the evidence presented by both sides, I find that Choi is a coinventor of the subject matter of two claims of the patent, that section 256 permits correction of the patent to add him as a coinventor and that Choi is not barred from obtaining correction of the patent by laches or equitable estoppel.

I. Background

The patent in question is United States Patent No. 4,535,773 (the '773 patent), entitled "Safety Puncturing instrument And Method." The patent claims surgical puncturing instruments, known as "trocars," with certain mechanical and electronic components designed to reduce the danger to patients posed by use of conventional trocars. The parties refer to the instruments claimed in the patent as "safety trocars."

---

is the sole inventor of the subject matter of the patent and by failing to disclose Choi as a coinventor.

In June 1989, Yoon and Ethicon commenced this action against USSC alleging infringement of claims 34 and 50 of the '773 patent. At a deposition in April 1990, Yoon was shown a handwritten document dated August 20, 1975, entitled "Flow Chart of the Procedure," relating to use of a "safety trocar system." DX 29.[2] See USSC's October 15, 1992 Motion to Correct Inventorship, Appendix 1, Ex. 3, pp. 112-117. Yoon testified that the document had been prepared in part by Choi, whom he described as an ,electric technician with "expertise in sensor[s]," during a trip Yoon made to South Korea in 1975. Yoon testified that he planned to hire Choi but never did. Asked whether Choi did any work for him, Yoon answered, "Some of the sensor area, but was discussing [sic] stage." Asked whether Choi did anything "relating to trocars," Yoon replied, "No, no."

In mid-1992, counsel for U.S. Surgical contacted Choi regarding his involvement with Yoon and safety trocars. Discussions between U.S. Surgical's counsel and Choi led to an agreement dated September 3, 1992. DX 123. In that agreement, Choi granted U.S. Surgical an exclusive license to practice his "trocar related inventions"; authorized U.S. Surgical to bring an action to correct the patent to add him as a coinventor; promised to assist U.S. Surgical in connection with the action by providing information and testimony; and agreed to join the action as a party. U.S. Surgical agreed to pay Choi $300,000 on execution of the agreement and make future

---

[2] "DX" refers to Defendants' Exhibits. Plaintiffs' Exhibits are referred to as "PX"." "Y" refers to the Bates stamp numbers of the pages of the exhibits.

payments to him of-up to $1 million contingent on the outcome of the litigation.

On October 15, 1992, U.S. Surgical filed the instant motion seeking correction of the inventorship of the patent. U.S. Surgical and Choi contend that Choi is a coinventor of four of the patent's fifty-five claims.

Yoon and Ethicon acknowledge that Choi worked with Yoon on a project that led to issuance of the '773 patent but deny that he is a coinventor. They also argue that Choi should be barred from obtaining correction of the patent because he (1) failed to act with due diligence in asserting his coinventorship claim and (2) caused Yoon to have a reasonable belief that no such claim would ever be presented, which Yoon relied on in entering into his licensing agreement with Ethicon.

To obtain correction of the patent, U.S. Surgical and Choi must prove by clear and convincing evidence that Choi made an inventive contribution to the final conception of the subject matter of at least one claim of the patent.[3] At the hearing, they presented the testimony of the following witnesses: Choi; Yoon; Professor Donald S. Chisum, an expert in patent law; Professor Martin F. Schlecht, an expert in electrical engineering; and Lyndal L. Shaneyfelt, an expert examiner of questioned documents.

---

[3] See Price v. Symsek, 988 F.2d 1187, 1190-1194 (Fed. Cir. 1993). Evidence is clear and convincing if it produces an "abiding conviction" that the matter sought to be established is "highly probable." Id. at 1191 (citation omitted).

Yoon and Ethicon have no burden of proof except with regard to their reliance on the doctrines of laches and equitable estoppel. At the hearing, they presented the testimony of Yoon; Mrs. Yoon; Eph Konigsberg, a manufacturer of biomedical instruments;[4] Robert E. Bushnell, a patent attorney who represented Yoon in connection with obtaining the '773 patent; Tipton D. Jennings, IV, a patent attorney who represented Yoon on certain patent matters in the 1970's and 1980's; Melvin C. Garner, an intellectual property lawyer who is also an electrical engineer; and James R. Glover, a financial planning consultant who assisted Yoon in connection with licensing negotiations involving the '773 patent.

II. Findings of Fact

A. The Parties

1. Yoon is a physician specializing in obstetrics and gynecology. He was born in South Korea and graduated from medical school there in 1961. He has engaged in private practice in Maryland since 1970 and has worked extensively in the field of endoscopic surgery. He is the sole inventor named in numerous patents relating to devices used in endoscopic surgery.

Yoon has no formal education in electronics or engineering. Since the mid- to late 1970's, he has been aware of the existence of various types of sensors and interested in their potential application in the practice of gynecology. However, he does not understand basic terminology relating to electronics and is incapable of drawing circuits. Mindful of the limited

---

[4] Konigsberg testified by videotaped deposition.

nature of his own knowledge, he has looked for people with expertise in electronics and engineering to assist him in connection with his projects. Prior to meeting Choi, he disclosed no use of electronics in connection with his patented inventions.[5]

2. Ethicon is a New Jersey corporation with a principal place of business in New Jersey. On June 27, 1988, Yoon granted Ethicon an exclusive license under the '773 patent. DX 18, DX 19. Pursuant to the licensing agreement, as amended, Ethicon manufactures and sells a safety trocar. The product has been a commercial success. To date, Ethicon has paid Yoon more than $15 million in royalties in connection with the '773 patent.

3. U.S. Surgical is a Delaware corporation with a principal place of business in Connecticut. It also manufactures and sells a safety trocar.

4. Choi is a resident of Maryland. Like Yoon, he was born and educated in South Korea. He matriculated at a university there for a period of time, taking courses in physics, chemistry and electrical engineering, but did not get a degree.

---

[5] In October 1979, shortly before he met Choi, Yoon applied for a patent that later issued as U.S. Patent No. 4,254,762 (DX 3) ('762 patent). One of the purposes of the invention claimed in the '762 patent is to provide a "signal at the completion of the puncture of the wall of the body cavity by the trocar means." DX 3, Col. 2 and Claim 1. Unlike the patent at issue in this case, which describes sensors and electronic networks for the purpose of providing such a signal, the '762 patent discloses no sensors or electronics.

From 1973 to 1979, he held a series of jobs in South Korea working in consumer electronics. In April 1979, he emigrated to the United States. Since then, he has been employed in a number of different positions involving research and development activities relating primarily to electronic devices. At the time of the hearing, he was self-employed as a consultant. He has never been named the inventor of any patent.

Choi does not have Yoon's credentials as a scientist or inventor. However, he was qualified to collaborate with Yoon in a joint effort to develop a safer trocar because of his training and experience in electronics.

B. Surgical Trocars

5. A trocar is a surgical puncturing instrument used in endoscopic surgery. Endoscopic surgery is a minimally invasive surgical technique whereby access is gained to the interior of an anatomical cavity by one or more small punctures in the cavity wall. Trocars are used in surgery requiring penetration of the wall of the abdomen.

6. Conventional trocars consist of two parts: a hollow tube, referred to as a sleeve; and a cutting element, which consists of a shaft with a sharp cutting tip at one end. To puncture the abdominal wall using a trocar, the surgeon presses the trocar against the patient's abdomen until the cutting tip penetrates the abdominal wall and extends into the abdominal cavity. Once the abdominal wall is punctured in this manner, the surgeon removes the cutting element of the trocar, leaving the sleeve of the trocar as a port into the abdominal cavity through which instruments can be inserted to carry out diagnostic and other procedures.

7. Use of conventional trocars to puncture the abdominal wall can lead to accidental injury. The trocar's cutting tip encounters significant resistance from the abdominal wall until the wall is penetrated. Unless the surgeon stops pushing the cutting tip as soon as the wall is penetrated, the tip will penetrate more deeply, where it can harm internal organs, blood vessels and other anatomical structures.

C. Chronology

a. The 1978 Yoon-Konigsberg Meeting

8. Sometime in the 1970's, Yoon undertook to develop a surgical trocar that would reduce the risk of injury to patients associated with conventional trocars.

9. In 1978, Yoon met with Eph Konigsberg concerning commercial development of a device for monitoring dilation of the cervix during labor. Konigsberg's company specializes in manufacturing miniaturized sensors for use in biomedical devices. Yoon was interested in finding out whether Konigsberg could make a miniature sensor that could be affixed to the cervix.[6]

10. During his meeting with Konigsberg, Yoon raised the subject of using miniature strain gauges on surgical trocars. PX 521, 24-25. A strain gauge is a type of pressure sensor that can be used to detect changes in the condition of the

---

[6] Before meeting with Konigsberg, Yoon disclosed the concept and design of the monitoring device to his patent attorney, Tipton D. Jennings, IV. See PX 356, PX 367, PX 368.

object to which it is attached. Yoon showed Konigsberg drawings of trocars with strain gauges.

11. During a videotaped deposition in this case, Konigsberg drew the trocars disclosed to him by Yoon in 1978. PX 511. One is a "safety shielded trocar, that has strain gauges on the "shield."[7] The other trocar has no shield but does have strain gauges on the cutting tip.

12. Based on Konigsberg's videotaped testimony, which I credit, I find that by 1978 Yoon had conceived of (a) the general idea of using pressure sensors in the cutting tip of a trocar as a means of monitoring the position of the cutting tip relative to the abdominal wall; and (b) the general idea of using sensors to monitor the movement of the shield of a safety shielded trocar.

13. In connection with his meeting with Konigsberg, Yoon prepared a handwritten document listing and describing various projects he had in mind in 1978. PX 391. The document includes the following entry:

> Project 3 - Yoon Safety Trocar System with protruding or shielding mechanisms having sensing devices in the distal end of various types to detect at proximal Position [] each step of

---

[7] A safety shielded trocar has two sleeves: an outer sleeve, which does not retract, and an inner sleeve or "shield," as it is called, which does retract. When the cutting tip of the trocar penetrates the abdominal wall, the shield springs forward and covers the tip, thereby protecting internal organs against injury.

movement of distal protruding portion including various retractable safety trocar systems.

Y 7145. This document, which I find to be authentic, shows that by 1978 Yoon had conceived of the general idea of a safety trocar that would use sensors in conjunction with protruding and shielding mechanisms to enable the surgeon to detect the position of the cutting tip relative to the abdominal wall. The document also shows that by 1978 Yoon had conceived of the general idea of a retractable safety trocar.[8]

b. Yoon's Work with Choi

14. Yoon met Choi in early 1980, after Choi settled in the Baltimore area. They met through Choi's spouse, who was an operating room nurse at a hospital where Yoon had privileges. Mrs. Choi told Yoon that her husband had a background in electronics and was interested in inventing things.

---

[8] The defendants have moved to strike this exhibit on the ground that it'- is hearsay. The document is admissible under Fed. R. Evidence 801(d)(1)(B) as a prior statement consistent with Yoon's testimony that he conceived of the subject matter of the claims at issue before he met Choi. Allowing the document to remain in evidence is appropriate because it was offered to rebut an express charge that Yoon's testimony concerning his conception of the subject matter of the claims before he met Choi is false. Defendants had an adequate opportunity to cross-examine Yoon concerning the document at the hearing. Accordingly, defendants' motion to strike is denied. See generally, Tome v. United States, 115 S.Ct. 696 (1995).

15. During a visit to Yoon's home in February 1980, Choi showed Yoon a stereo amplifier, which he had designed and built, and told Yoon about an idea he had for an aerosol can that could be used even when tilted sideways or upside down. Yoon questioned Choi about his electronics background and asked him to build a prototype of the aerosol can.

16. On a subsequent visit to Yoon's home around Easter 1980, Choi demonstrated a working prototype of the aerosol can. Yoon asked if Choi could design an electronic sensor that would detect and signal when a baby's diaper had become wet. Choi said that he could and subsequently delivered a working prototype to Yoon. Choi also gave Yoon a working prototype of an electronic wireless stethoscope.

17. In mid-1980, Yoon suggested to Choi that they should work together developing new products. Discussion of Yoon's proposal led to an informal understanding between Yoon and Choi that they would work together. Yoon and Choi agreed that Choi would be responsible for the technical side of the business, that Yoon would be responsible for determining whether a product would be commercially viable or patentable and that any products would be Promoted in Yoon's name. Neither of them would receive any salary. Any profits would be shared.[9]

---

[9] " Plaintiffs contend that Choi worked without pay for Yoon because he wanted to be associated with an elder. Choi respected Yoon and valued their relationship. However, plaintiffs, contention that he was a volunteer with no financial interest in the work he did with Yoon is rejected. Choi's testimony concerning his informal partnership agreement with Yoon was credible, finds some support in handwritten notes

18. Choi subsequently worked with Yoon on a number of projects. The most important project involved Yoon's effort to develop a safer trocar. Yoon sought Choi's help in connection with the safety trocar project because of Choi's expertise with regard to electronics and his demonstrated interest in inventing things.

19. Choi was not familiar with trocars. Yoon showed Choi a conventional trocar and explained the risk of accidental injury posed by use of conventional trocars.

20. Choi worked with Yoon on the safety trocar project until late 1981 or early 1982. He worked on the project at night and on week-ends. He worked alone at his own apartment and worked with Yoon at Yoon's house. During their collaboration on the project, Yoon and Choi occasionally worked through the night discussing the project, sharing their expertise and know how and exchanging ideas.

21. While working on the safety trocar Project, Choi created a variety of documents, including sketches of retracting trocars (DX 48, Y1163; DX 31, Y964), a sketch of an electronic blunt probe trocar (DX 48, Y1151) , a sketch relating to use of fiber optics with trocars (DX 79, Y2225) and drawings of sensors and circuits. Some of the sketches were made while Choi and Yoon sat together at Yoon's house exchanging ideas. See, e.g., DX 79. Choi also built or modified prototypes of certain instruments and circuits.

---

made by Yoon reflecting discussion of a business arrangement between Yoon and Choi (DX 79, Y22273-2274) and was not disputed by Yoon at the hearing.

22. On January 14, 1982, Choi sent Yoon a letter. DX 122. Among other things, the letter stated:

> "I regret it exceedingly, but I must inform you that I myself cannot participate in the planned business activity of Dr. Yoon.
>
> "However, if you need assistance regarding the 'Safety Trocar' on which Dr. Yoon has been making progress until now, I will accept responsibility for that only.
>
> "But I will not consider a monetary interest at all.
>
> "Not as a member of Dr. Yoon's planned business, but with the hope of continuing to earn his goodwill as before, May God bless dear Dr. Yoon ever more!"

23. Choi sent the letter to Yoon because he was exhausted, .felt he had nothing more to contribute to the project and was concerned that Yoon regarded his work on the project as a failure. Choi wanted to continue to have a working relationship with Yoon and hoped to elicit through the letter reassurance that Yoon wanted to continue to have a working relationship with him. The letter was very deferential in content and tone because Choi did not want to embarrass Yoon. Yoon did not respond to the letter.

24. After January 1982, Yoon and Choi no longer spoke or saw each other on a regular basis. Choi felt rejected

by Yoon. Choi visited Yoon's house occasionally but they no longer worked together.

25. Even though Yoon did not respond to Choi's letter, Choi still trusted Yoon to some extent and reasonably relied on Yoon to tell him if the safety trocar project ever resulted in a commercially viable product or patent encompassing Choi's work on the project.

c. Yoon's Application for the '773 Patent

26. In mid-1981, Yoon asked patent attorney Robert E. Bushnell to begin work on the application that became the '773 patent. Yoon had previously shown Bushnell a prototype of a safety shielded trocar with a tactile sensor.

27. Yoon and Bushnell had a series of discussions concerning the patent application and discussed the subject matter of the application in detail. Yoon provided Bushnell with drawings and made some drawings in Bushnell's presence. Bushnell made notes of his discussions with Yoon. PX 513.

28. Yoon did not tell Choi about his retention of Bushnell and Choi did not know that Yoon had retained a lawyer to apply for a patent in connection with the safety trocar project.

29. On March 26, 1982, Yoon applied for the '773 patent. The application was prepared by Bushnell. In the application, Yoon swore that he was the sole inventor of the subject matter claimed in the patent. Based on details provided by Yoon in the course of their discussions, Bushnell believed that Yoon was the sole inventor. Tr. 1285-86.

30. At the hearing in this case, Bushnell testified that Yoon mentioned Choi's name to him while they were working on the application for the '773 patent. Bushnell's recollection that Yoon mentioned Choi appears to be uncertain. He testified at his deposition that he did not recall hearing Choi's name. Whatever Yoon might have said to Bushnell about Choi, Bushnell had the impression that any contribution Choi might have made was limited to that of a draftsman.

31. Bushnell does not recall receiving Choi's sketches of a retracting trocar (DX 31, Y964; DX 48, Y1163), electronic blunt probe trocar (DX 48, Y1151) or fiber optic trocar (DX 79, Y2285). If Bushnell had seen those sketches and been told they were Choi's, he probably would have asked Yoon about Choi and the nature and extent of Choi's contributions to the safety trocar project. Because he did not see them, no such inquiry took place.

32. Figure 1 of the patent (DX 1) is a drawing of a safety shielded trocar that Bushnell drew based on the prototype provided by Yoon. Figure 1 shows a tactile sensor, wire 71 with tip 76, which was on the prototype. Using an electrical cord, Yoon showed Bushnell that the tactile sensor could be used to activate light emitting diodes in an electrical minibox like the one shown in Figure 6 of the patent. Bushnell asked Yoon to have tracings made of the circuitry contained in the minibox. Shortly before the patent application was filed, Yoon gave Bushnell drawings of two electronic circuits. Bushnell postponed filing the application until he got the drawings from Yoon. The drawings, which became Figures 5 and 30 of the patent, had been prepared by Choi. Bushnell assumed that the drawings had been made by a draftsman.

33. Choi's name appears on some of the documents that were submitted to Bushnell. However, Yoon did not direct Bushnell's attention to Choi's name on the documents, Bushnell did not focus on Choi's name and Choi's name was overlooked by Bushnell.

34. Drawings of sensors and circuits that were originally prepared by Choi were submitted to Bushnell after being redrawn and retyped by Yoon and his wife. Comparison of the original drawings with the redrawn, retyped documents submitted to Bushnell shows that Choi's name was deleted by the Yoons.[10]

35. On August 20, 1985, the '773 patent was issued to Yoon. The claims of the patent are directed primarily at a safety shielded trocar. Choi does not contend that he is a coinventor of the safety shielded trocar disclosed in the patent.

d. Subsequent Events

36. Yoon did not tell Choi about the issuance of the '773 patent and Choi did not know about it.

37. Sometime in 1987 or 1988, Choi went to Yoon's house for a visit. On arriving there, he encountered Yoon, Mrs. Yoon and Yoon's financial advisor, James R. Glover, who was getting ready to leave. Yoon introduced Glover to Choi and

---

[10] Mrs. Yoon testified that she whited-out Choi's name to provide Bushnell with a legible copy. Yoon testified that Choi's name was whited-out accidentally as a result of a mistake.

explained in general terms that Glover was helping him negotiate a licensing agreement for a safety trocar patent with U.S. Surgical. Tr. 1675. Choi shook hands with Glover, nodded his head but said nothing. Tr. 1676.

38. Sometime after 1986, possibly after his encounter with Glover, Choi went to the PTO with a friend in connection with a matter unrelated to safety trocars.[11] While there, Choi undertook to determine whether a patent had been issued to Yoon in connection with the safety trocar project. He looked up Yoon's name in an index believing the index to be complete and found a patent that related to trocars in that 'It contained a figure that looked like a trocar. Choi copied the patent and took it home. The patent he copied was not the '773 patent and did not relate to safety trocars.[12]

39. Choi first learned of the existence of the '773 patent when he was contacted by counsel for U.S. Surgical in June 1992. On learning that a patent had been issued, Choi called Yoon. As of that date, Choi had not yet seen the '773 patent. In that phone conversation, Yoon told Choi that Choi did not contribute anything to the '773 patent.

40. Choi subsequently received a copy of the '773 patent from U.S. Surgical's counsel. After reviewing the patent,

---

[11] Whether Choi went to the PTO before or after his encounter with Glover is unclear. The evidence is insufficient to support a finding one way or the other.

[12] Choi has lost the copy that he made at the PTO. However, I credit his testimony that the patent he copied was not the '773 patent.

he wrote a letter to U.S. Surgical's counsel enclosing a marked-up copy of the patent. See PX 404. The letter stated in part:

> "I scanned the file and the paper work, and I marked the points which are 100% my spell (sic] or concept by color marker.
>
> Also, I can see this crafty man converted and hide [sic] many of my concept [sic] into the claim [sic]."

In marking-up the patent, Choi circled Figure 34, which depicts a retractable trocar, and wrote in the margin of column 5: "Fig. 34 is 100%. Young Choi's concept." Numerous paragraphs of the patent's description of the invention were also marked-up by Choi, as were many of the patent's claims.

41. After reviewing the '773 patent, Choi called Yoon. During that phone conversation, Yoon asked Choi for help in connection with his patent infringement suit against U.S. Surgical and repeated his earlier statement that Choi contributed nothing to the '773 patent. The motion to correct the inventorship of the patent was filed shortly thereafter.

D. The Credibility of Yoon and Choi

To resolve the factual issues presented by the parties, it is necessary to consider certain matters affecting the credibility of Yoon and Choi.

42. During a deposition in April 1990, before he knew Choi would be a witness in the case, Yoon testified that he met Choi in 1975 when he went to South Korea looking for a technician who could help him with regard to electrical

sensors. In fact, he met Choi in Baltimore in 1980. At the hearing, he was asked to explain his deposition testimony. In response, he first stated that he was confused at the deposition. Later, he stated that, he had confused Choi with somebody else. Neither answer appeared to be truthful.

43. At his deposition in April 1990, before he knew Choi would be a witness, Yoon was shown the documents contained in Defendants' Exhibits 158 and 159. Defendants' Exhibit 158 consists of 34 pages of drawings hearing Bates stamp numbers Y1148 through Y1182; Defendants' Exhibit 159 consists of 3 pages bearing Bates stamp numbers Y1145 through Y1147. After stating that he had seen the documents before, Yoon testified without qualification that he authored the documents. Asked by U.S. Surgical's counsel, "Have you looked at the documents completely? Did you author the entire text of each document?", Yoon was cautioned by his own counsel to "Take some time and look at the whole stack of documents." Yoon then repeated his unequivocal affirmative answer making it appear that he was the sole author of all the documents.

Yoon's deposition testimony was not accurate. All but a few of the 34 documents contained in Defendants' Exhibit 158 were drawn by Choi. The deposition testimony deals with a matter of significance, rather than a minor detail, because the documents Yoon claimed to have authored are drawings Choi relies on to prove his claim of coinventorship. See DX 158, Y1150 -Y1165.

44. At the hearing, Yoon was shown Defendants' Exhibit 158 and asked whether he testified at his deposition that all the drawings contained in the exhibit were done by him. Tr.

664-671. Yoon replied, "If I said [that] at that time, then maybe I was confused." Tr. at 665. Later he testified that he "was not really pay[ing] attention" at the deposition and was "completely confuse[d]." Tr. at 668. I do not believe that Yoon testified as he did at the deposition because he failed to pay attention or was confused. The deposition transcript shows that the questions put to him were simple and straightforward. His counsel explicitly advised him to look at all the documents before answering.

45. In October 1992, after the close of discovery in this case, Yoon proffered a number of documents he purportedly prepared before he met Choi. Yoon proffered the documents as exhibits to an affidavit he submitted in opposition to the motion to correct inventorship. See DX 17, Ex. 2 - 6. In his affidavit, Yoon stated: "These documents confirm -that, before I met Mr. Choi, I conceived the ideas that Mr. Choi claims are his . . .." DX 17 at 5.

46. The documents Yoon proffered as attachments to his affidavit consist of a series of drawings. The drawings are dated and signed. Each drawing appears to have been completed in the same ink before being dated and signed. At U.S. Surgical's request, the documents were examined and tested for authenticity by Lyndal Shaneyfelt, an expert examiner of Questioned documents. Shaneyfelt examined the documents using reflected infrared photography, infrared luminescence photography and indentation analysis. Based on his examination, Shaneyfelt concluded that the documents display a clear pattern of additions of safety trocars, springs, shields and electronics and that the additions were probably made at the same time, sometime after 1978.

47. Shaneyfelt also examined six other documents produced by Yoon after the close of discovery. See Defendants' Exhibits 66, 83, 89, 92, 95, 98. His examination of those documents revealed the same pattern of additions of safety trocars, springs, shields and electronics.

48. At the hearing, Shaneyfelt testified that the pattern of additions he found when he examined and tested Yoon's documents was "one of the clearest" patterns of alterations he has seen in his forty years' experience as a document examiner. He further testified that, in his opinion, all the additions were made at the same time, after 1978 at the earliest in response to some stimulus that prompted Yoon to make the additions.

49. Yoon was present throughout Shaneyfelt's testimony at the hearing and had an opportunity to deny altering the documents. However, he did not do so.[13]

50. Shaneyfelt was an impressive witness and his testimony is well-supported by a series of striking exhibits demonstrating the clear pattern of additions revealed through his tests. See DX 323, 330, 334, 337, 340, 343, 346, 349, 350, 353, 364, 370, 373, 376, 379, 382 and 384.

---

[13] One of the documents proffered by Yoon in opposition to the motion to correct inventorship purports to have been witnessed by Attorney Jennings on November 10, 1977. See DX 17, Ex. 4. Based on Shaneyfelt's tests, it appears that sketches of a trocar were added to the document after it was witnessed by Jennings. See DX 53 through DX 56 and DX 334. Jennings testified on behalf of Yoon at the hearing but was not questioned about the document.

51. Based on Shaneyfelt's testimony, which stands unrefuted, I find that Yoon has altered documents and proffered them in this case in an effort to defeat Choi's claim that he is a coinventor.

52. Yoon has admitted backdating documents. One example is Defendants' Exhibit 29. After this document was created by Choi in 1980 or 1981, Yoon made the following entries on the document:

- August 20/21, '75, InBae Yoon with Mr. Choi until 2:00 a.m."

- Okay work with us. Thank you, Mr. Choi. I.B. Yoon August 20, '75."

Yoon selected the August 1975 date after confirming with Mrs. Yoon that he had been traveling in Korea at that time. Yoon has admitted that he wanted anyone who saw the document to believe it was prepared in Korea in 1975.

53. At his deposition in 1990, Yoon did not acknowledge backdating Defendants' Exhibit 29 or attempt to provide any explanation for the backdating. Instead, he gave testimony he now admits was wrong, that the reference to 1975 reflected a meeting in a hotel room in Korea where he and Choi worked until 2:00 a.m.

54. Another example of backdating is provided by Defendants' Exhibit 34. After Choi created this document in 1981, Yoon backdated it to reflect a date of November 17, 1979 and added the following instruction to Choi: "Make at least 4 alternative Yoon safety trocar systems by Nov. 30, '79. I.B.

Yoon. Though Choi never saw this instruction, Yoon testified at his deposition that the instruction referred to a request he made in 1979 for Choi to build four prototypes.

55. Other documents prepared by Choi in 1980 or 1981 were backdated by Choi at Yoon's express direction to reflect a date in 1975. Those documents include drawings by Choi contained in Defendants' Exhibits 31, 48 and 79. Yoon told Choi that backdating the drawings to 1975 would be helpful later if there was a patent dispute. Choi asked Yoon what he should do if somebody asked him about the 1975 date. Yoon advised Choi not to worry. Yoon told Choi that if anyone asked about the 1975 date, Choi should say that he and Yoon met in a hotel in Seoul at that time.

56. At the hearing, Yoon testified that he asked Choi to make and backdate certain documents so he could use them in a patent dispute with a company called "Olympus." Yoon testified that he was angry and upset at the time because he had just learned that Olympus had stolen his invention of a safety trocar system, which he had discussed with Olympus between 1976 and 1978. Yoon testified that he asked Choi to do him the favor of re-creating what had been disclosed to Olympus by making drawings and backdating them. Yoon testified that Choi then drew what Yoon told him to draw.

57. Yoon's patent attorneys have testified that he was very upset with Olympus in 1981; there is some evidence that Yoon settled a patent dispute with Olympus in the early 1980's; and the word "Olympus" appears among notes Choi wrote while speaking with Yoon. On the other hand, Choi testified that the documents in question reflect his ideas, not Yoon's; that Yoon did not refer to a patent dispute with Olympus as a reason for

backdating documents; and that, while he might have heard about a dispute with Olympus, he thought it related to Yoon's patent for a fallopian ring applicator.

58. Having observed and listened carefully to both Choi and Yoon, and having considered their conflicting testimony in light of all the evidence, I believe Choi's testimony and do not believe Yoon's. Unlike Yoon, Choi appeared to be doing his best to testify truthfully at the hearing. His testimony that the drawings reflect his creative input is consistent with the documents themselves. The drawings appear to be the work of a person with knowledge of electronics who is using his expertise to try to devise a solution to a problem, rather than the efforts of one who merely drew, scrivener-like, what someone else told him to draw, especially someone with no electronics background like Yoon.

59. Yoon's explanation that he asked Choi to make and backdate the documents in a fit of anger was never advanced until the hearing. Asked to explain why he did not disclose or explain the backdating at his deposition in this case in 1990, many years after he settled with Olympus, Yoon testified that he was confused by the questions at his deposition and had forgotten about the backdating. I observed Yoon carefully when he gave that testimony and do not believe that he was confused at his deposition or had forgotten about the backdating.

60. I find that: Yoon backdated documents and instructed Choi to backdate documents because, as he told Choi at the time, he assumed it could prove helpful to him in any patent dispute that might arise in the future. Having backdated

the documents with that general purpose in mind, Yoon attempted to use them to his advantage in this case.

E. Claim Analysis

61. The four claims of the '773 patent at issue in this case are: claim 23, which covers means for providing a signal to the surgeon on movement of the shield (i.e. inner sleeve) of a safety shielded trocar; claim 33, which covers a blunt probe trocar; claim 46, which covers a fiber optic trocar; and claim 47, which covers a retractable trocar.

a. Claim 23: Signal Upon Movement of Safety Shield

62. Claim 23 of the '773 patent is written in means plus function language, as permitted by 35 U.S.C. § 112, ¶ 6.[14] The claim reads as follows:

"The instrument of claim 1, 4, 6 or 7 further comprising means carried by said accommodating means [the trocar cannula] and contacting said shielding means [the inner sleeve] for following axial movement of said shielding means relative to said accommodating means and for creating a sensible condition in response to said axial movement."

---

[14] 35 U.S.C. § 112, 1 6 provides: "An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification or equivalents thereof."

63. The specifications of the patent relating to claim 23 disclose both a tactile means and a switching mechanism for sensing movement of the safety shield. The patent teaches that six sensors depicted in Figures 31A-E can be used in place of the switch.

64. U.S. Surgical and Choi contend that the concept of providing the surgeon with a signal on movement of the shield was Choi's idea, not Yoon's. However, the evidence they have offered is not convincing.

65. Konigsberg's deposition testimony establishes that Yoon had the general idea of using sensors to sense the movement of the safety shield before he met Choi. Moreover, it was Yoon, not Choi, who disclosed the tactile means for following the safety shield to Bushnell. According to Bushnell, that disclosure occurred in the summer or fall of 1980 when he received a prototype of the safety shielded trocar. Choi does not claim that he contributed to the conception of the safety shielded trocar or the tactile means for following movement of the shield.

66. I find that the concept of using tactile and other means to generate a signal to the surgeon on movement of the safety shield originated with Yoon, not Choi.

67. Defendants contend that Choi is a coinventor of claim 23 because he designed a means of sensing movement of the safety shield.

68. In 1981, Choi sent Yoon a letter setting forth a design of a sliding switch as a means of sensing movement of the inner sleeve or shield. DX 20. Figure 3 of the patent shows

the same concept, although it differs from Choi's's's drawing in that it shows use of a plunger switch rather than a sliding switch.

69. Choi's letter corroborates his testimony that he conceived of the design shown in the letter. However, I am not convinced that the design itself is inventive.

70. Melvin C. Garner, the plaintiffs, expert on electrical engineering and patent law issues, testified that if Yoon asked Choi to design a switch for sensing movement of the shield and Choi's contribution was limited to designing the switch set forth in the letter, Choi's contribution should not he regarded as inventive. Garner was a credible witness and I am persuaded by his opinion on this point.

71. Choi testified that he selected and designed the six sensors set forth in Figures 31A-E. Yoon contends that he selected the sensors. I need not resolve this conflict because, even if Choi selected the sensors, I am not convinced that his contribution in this regard makes him a coinventor.

72. Garner testified that the sensors are obvious substitutes for the switch. I credit his opinion on this point. 73. Accordingly, I find that U.S. Surgical and Choi have -failed to prove by clear and convincing evidence that Choi is a coinventor of Claim 23.

b. Claim 33: Blunt Probe Trocar

73. Claim 33 describes a trocar with a spring-loaded, blunt probe located in an aperture of a trocar blade. The blunt probe is designed to spring forward when the trocar penetrates

the abdominal wall. On springing forward, the blunt probe protects internal organs from the trocar blade.

74. The blunt probe trocar is comprised of the following elements: (a) a trocar with an aperture in the blade; (b) a blunt probe that slides through the aperture; (c) a spring connected to the probe that biases the probe to protrude beyond the aperture unless it is subjected to counterpressure sufficient to force it to recede; and (d) a means that responds to the movement of the probe and creates a sensible signal indicating the probe's position.

75. The design of the blunt probe trocar is shown in Figure 18 of the patent. See sheet 3.

76. The general idea of making a trocar with a blunt probe was Yoon's. The concept is traceable to Yoon's use of a Verres needle, a needle-like trocar that has a spring-loaded retractable tube inside a sharpened cylinder. When a Verres needle is used to pierce the abdominal wall, the tube retracts inside the cylinder until the wall is pierced, then springs forward.

77. Yoon's idea of using a blunt probe to create a safer trocar is also traceable to his safety endoscope, which is the subject of U.S. Patent No. 4,254,762 (DX 3). The '762 patent was issued to Yoon in 1981 based on an application filed in 1979. The safety endoscope consists of a trocar with a sharpened distal end for puncturing the abdominal wall and an endoscope that is biased by a spring to extend beyond the sharp tip. When pressure is applied to the distal end of the endoscope, it recedes into the body of the trocar against the bias of, the spring.

78. At his deposition in this case, Choi testified that Yoon was "the first" to bring up the blunt probe concept. Choi Dep. 100. At the hearing, on being asked whether he had ever seen or heard of a Verres needle, Choi testified that the blunt probe was based on the "same concept" and that "Dr. Yoon brought it up." Tr. 226-27. Choi also testified that it was Yoon who raised the possibility of using a blunt probe and a sensing mechanism to create a signal. Tr. 381.

79. At the hearing, Choi testified that he conceived o f locating the blunt probe in the trocar shaft and putting the probe through an aperture in the blade surface. I credit his testimony.

80. Choi's credible testimony that he conceived of these elements of the blunt probe trocar is corroborated by a sketch he drew while working with Yoon, Defendants' Exhibit 48, Y1151. The sketch contains the elements of the invention disclosed in Figure 18 of the patent. The presence of each element is confirmed by comparing Defendants' Exhibit 302, which provides a color coded list of the elements of the invention, and Defendants' Exhibit 219, which contains color coded versions of Choi's drawing and Figure 18.

81. Plaintiffs contend that Yoon thought of putting the blunt probe in the trocar shaft before he met Choi. They rely on Plaintiffs' Exhibit 297, Y 7139, a black ink drawing signed by Yoon and his wife on July 15, 1973, which displays a blunt probe in green ink. This document was produced by Yoon after Choi's deposition was taken. If the green probe is disregarded, the black object that remains looks like a fallopian ring applicator described by Yoon in figure 10 of U.S. Patent No. 3,870,048 (DX 5), a patent he applied for on July 30, 1973. At

the hearing, Mrs. Yoon testified that, to the best of her recollection, everything that now appears on the document appeared on it when she signed it in 1973. Tr. 1420. On cross-examination, Yoon testified that he cannot recall when the green probe was added. Tr. 1664. Considering the untimely production of this document, Yoon's admitted backdating of documents and his alteration of other documents, I find that this document is too unreliable to be given any weight.

82. After considering all the evidence presented by both sides, I am convinced that the idea of placing the blunt probe in the trocar shaft was Choi's, not Yoon's.

83. Plaintiffs contend that Claim 33 covers Figure 27 of the '773 patent, which resembles a Verres needle. Choi does not claim that he is a coinventor of the instrument depicted in Figure 27.

84. Figure 27 is not within the scope of Claim 33 because it does not have a trocar blade surface that (a) tapers into a sharp distal point and (b) is perforated along one side by an aperture.

85. Claim 33, which was originally presented as application claim 30, was rejected as obvious in light of the '762 patent (DX 3) and another patent. The claim was amended to replace language requiring a "shaft having a distal end with a tapered distal edge," as shown in Figure 27, with language requiring a "shaft having a distal end with a distal blade surface" that "taper[s] into a sharp distal point" and is "perforated along one side by an aperture." DX 2, Aug. 15, 1983 Amendment, p. 10. Yoon argued that the amended claim was distinguishable over his 1762 patent because the 1762 patent "teaches only an

outer hollow cylinder having a sharpened distal end, and nowhere teaches or suggests either a distal blade surface or a distal blade surface having a side perforated by an aperture." Id. Figure 27 does not have the required "blade surface" or the "aperture" in the "side" of the "blade surface." Like the prior art disclosed in the 1762 patent, Figure 27 shows only a hollow cylinder with a sharpened distal end.

86. Plaintiffs note that Claim 33 was allowed only after the addition of an abutment member and, on that basis, contend that the abutment member is the only point of novelty. However, in seeking approval of the application based on the addition of the abutment member, Yoon argued:

> Alternatively, claim 30 was previously amended to include means having a blunt distal bearing surface slidably reciprocating through an aperture in the blade surface of an elongate member having a sharp distal point. These features are also conspicuously absent from either Yoon or Turkel because both disclose only unshielded elongate members having sharp or tissue cutting surfaces at their distal ends. DX 2, Amendment of May 21, 1984, at 22.

87. U.S. Surgical and Choi- contend that the last element of Claim 33, the means for "creating a sensible signal," includes within its scope the networks of Figures 5 and 30 of the patent. Figure 5 appears on sheet 4; Figure 30 appears on sheet ii. Bushnell held up filing the patent application waiting for those figures so he could disclose the best mode of Practicing the invention as required by 35 U.S.C. § 112.

88. Figures 5 and 30 are redrawn versions of network drawings prepared by Choi. See DX 26 and DX 34. Yoon made no contribution to the creation of either drawing. Both drawings were copied into the patent after being redrawn.

89.. Figures 5 and 30 differ from Choi's drawings in that certain parts of the drawings appear to have been misunderstood by the person who redrew them. See DX 205 and DX 206. A person skilled in the art would notice the errors and correct them.

90. Defendants, expert witness, Dr. Martin F. Schlecht, a professor in the electrical engineering department at the Massachusetts Institute of Technology, testified that the networks of figures 5 and 30 are the structures disclosed in the patent that provide a means for creating a sensible signal to the surgeon regarding the position of the probe. Professor Schlecht was a credible witness and I credit his opinion on this point.

91. In support of their contention that claim 33 covers figures 5 and 30, U.S. Surgical and Choi also presented the testimony of Professor Donald Chisum, an expert in patent law. He testified that, pursuant to 35 U.S.C. § 112, ¶ 6, the claim must be construed to include the networks of Figures 5 and 30 because they are the only structures disclosed in the patent that satisfy the requirement of a means for "creating a sensible signal" to the surgeon indicating the position of the probe. Professor Chisum was a credible witness and I give weight to his opinion on this point.[15]

---

[15] See In re Donaldson Co., Inc., 16 F.3d 1189 (Fed. Cir. 1994).

92. In support of their contention that claim 33 does not cover the networks of figures 5 and 30, plaintiffs rely on the testimony of their expert witness, Mr. Garner. He testified that the requirement of a means for creating a sensible signal could be satisfied by switch 92, which might be noisy enough in operation to signal the surgeon as to the position of the probe. Tr. 1754. He further testified that if an electrical signal were necessary, wires 202 could be hooked up to a battery and a bell or a battery and a light or a battery and a buzzer, any of which would provide a sensible signal. Tr. 1754-55.

Garner's testimony on this point was not persuasive. The possibility that switch 92 might be noisy enough to provide a sensible signal to the surgeon is not mentioned in the patent specification and appears to be wholly speculative. Moreover, while an electronic network is not the only structure that could be hooked up to wires 202 to create a sensible signal to the surgeon indicating the position of the probe, no other structure for performing that function is disclosed in the patent.

93. Plaintiffs contend that the alarm networks of figures 5 and 30 are not included in claim 33 because they are not mandatory. The patent specification states that "[s]witch 92 may contain contacts for two or more electrical leads 102" ('773 Patent, col. 8, lines 65-66) and that "[t] he switch may be coupled via electrical leads 202 to an electronic network 110" ('773 patent, col. 13, lines 16-18) (emphasis supplied) Plaintiffs argue that the word "may" shows that the alarm network is merely optional. However, the word "may" is used repeatedly throughout the specification to refer to matters that are not optional. See, e.g. , Col. 6, lines 22 through 35 (trocar blade "may" be introduced into proximal end of lumen of valve assembly; sharp point of trocar "may" be pushed longitudinally

forward; thin-walled inner sleeve "may" be placed inside outer sleeve), col. 6, lines 58 through 68 (hole "may" be drilled through wall of outer sleeve; wire "may" be wound into loops; groove "may" be cut; tip of wire "may" be bent inward); col. 7, lines 22 through 25 (incision "may" be made and inner sleeve "may" be placed against incision).[16]

94. At the hearing, Mr. Garner seemed to imply that, in his opinion, Choi's design of the circuits contained in Figures 5 and 30 should not be regarded as inventive. Tr. 1763-1765. Plaintiffs have not proposed a finding to that effect and I can find no testimony by Garner or anyone else that would adequately support such a finding. Given the technical nature of the circuits, I am unable to find that Choi's design was not inventive as a matter of law.

95. Professor Schlecht testified that, in his opinion, Claim 33 represents the inventive work of Choi. He based his opinion on, among other things, Choi's blunt probe drawing and Choi's electronic network drawings that were copies into the patent as Figures 5 and 30. See Tr. 954-55. I credit his opinion.

---

[16] Professor Schlecht testified that the word "may" in the patent specification should not be construed to mean that use of the networks is optional. In his opinion, the word "may" in the patent specification should be construed to mean that the networks can be connected to the switch by electrical leads, as shown in Figure 18, or fitted directly into the head of the trocar, as shown in Figure 19. Tr. 1099-1100. Professor Schlecht's opinion provides some evidence of how the language of the patent would be understood by an electrical engineer.

96. Accordingly, I find that U.S. Surgical and Choi have proven by clear and convincing evidence that Choi is a coinventor of Claim 33.

c. Claim 46: The Fiber Optic Trocar

[3] 97. Claim 46 of the '773 patent describes a surgical instrument that the parties refer to as a "fiber optic trocar." The instrument consists of a trocar sleeve with two sets of fiber optic cables arranged in an annular sheath around the interior periphery of the sleeve. Both sets of fiber optic cables extend the length of the sleeve. One set transmits light to and emits light from the distal end of the sleeve; the other, receives light emitted by the first set at the distal end and conducts it to the proximal end. The sleeve allows for insertion of a trocar. When the trocar tip penetrates the abdominal wall, the intensity of the light received by the second pair of cables diminishes.

98. The design of the fiber optic trocar is shown in Figures 37, 38 and 39 of the patent (sheet 14).

99. The elements of Claim 46 are (a) the sleeve (b) the fiber optic cables that emit light and (c) the fiber optic cables that detect light (d) with the cables arranged to form an annular sheath around the interior periphery of the sleeve. See DX 303.

100. Choi contends that he came up with the idea of using fiber optic cables to both emit and receive light in order to detect penetration of a cavity wall. He testified that the idea of using fiber optics as a means of both transmitting and receiving light was his, not Yoon's, and that Yoon had nothing to do with this concept. He also contends that he conceived of arranging the cables in an annular sheath.

101. Prior to meeting Choi, Yoon conceived and reduced to practice an annular sheath of fiber optic cables around the interior periphery of the sleeve of an endoscopic instrument. While performing procedures involving multiple endoscopic instruments, he observed that fiber optic cables of one instrument would receive at their distal ends light emitted from the cables of another instrument and would conduct that light to their proximal ends. As a result of his experience as a practitioner, he knew that the intensity of reflected light from the fiber optic cables in an endoscopic instrument decreases when the instrument passes through the tissues of a cavity wall into an open cavity.

102. Bushnell testified that Yoon disclosed the concept of the fiber optic trocar to him in a manner that showed a thorough understanding of the concept. A sketch Yoon drew at the time corroborates Bushnell's testimony. See PX 513.

103. To corroborate Choi's claim that he is a coinventor of claim 46, the defendants rely primarily on a sketch Choi drew while working with Yoon. Defendants' Exhibit 79, Y2285. By adding certain elements to the sketch, they have made it appear to be a drawing of fiber optic cables forming an annular sheath. See DX 222. Though this sketch arguably provides some corroboration for Choi's testimony, its probative value is slight. The sketch is so rough, it is difficult to tell what the sketch represents. Choi testified that the documents contained in Defendants' Exhibit 79, including this sketch, were drawn while he and Yoon sat at a table exchanging opinions and ideas. Given Yoon's previous work with fiber optics and endoscopes and the detailed knowledge he displayed to Bushnell regarding the fiber optic trocar, I am not convinced that the sketch reflects Choi's ideas, rather than Yoon's.

104. Weighing all the evidence, I find that U.S. Surgical and Choi have failed to prove by clear and convincing evidence that Choi is a coinventor of claim 46.

d. Claim 47: The Retractable Trocar

105. Claim 47 of the '773 patent describes a surgical instrument referred to by the parties as a "retracting" or "retractable" trocar. The instrument is designed to provide for automatic retraction of the trocar into a sleeve after a sensor on the tip senses penetration of the abdominal wall.

106. Claim 47 contains the following elements: (a) a trocar for puncturing the abdominal wall; (b) a sensor in the tip that responds to counterpressure exerted by the abdominal wall by converting the counterpressure into transmissible energy; (c) wires that convey the transmissible energy toward the proximal end of the trocar; (d) a sleeve; (e) a tension spring that pulls the trocar's proximal end into the sleeve; and (f) a plunger or bar that holds the proximal end of the trocar in place and prevents it from being pulled into the sleeve by the spring.[17]

107. The figures of the '773 patent that illustrate the design of the retracting trocar are Figures 34, 35 and 36. See sheet 13 .[18]

---

[17] Claim 47 does not include a means for retracting the trocar into the sleeve. See Tr.-1121, 1148 (no means claimed for structure that would take action of causing retraction to occur) (testimony of Professor Schlecht).

[18] Figures 34 and 35 show a trocar that is spring-loaded with a bias toward its proximal end. The tip of the trocar

108. Choi testified that he conceived of the retracting trocar disclosed in the patent and that Yoon ignored the concept when it was first presented to him. Yoon testified that he conceived of the retracting trocar independently of Choi.

109. To corroborate Choi's testimony, U.S. Surgical and Choi rely primarily on certain documents Choi prepared while working on the safety trocar project with Yoon, including sketches of retracting trocars. DX 31, Y955-964; DX 48, Y1163.

110. The elements of the retracting trocar described in the patent appear in Choi's sketches. DX 31, Y964; DX 48, 1163. Compare Defendants' Exhibit 304, which contains a color

---

extends beyond the sleeve. The trocar is held in that extended position by a plunger, which prevents the trocar from being pulled into the sleeve by the spring. Sensors in the tip of the trocar sense the counterpressure that is exerted against the tip by the abdominal wall during the puncturing procedure. When the sensors sense the drop in pressure that occurs on penetration of the abdominal wall, a signal is sent to a solenoid device, which becomes a magnet and pulls the plunger out of its position, permitting the trocar to be pulled into the sleeve by the spring.

Figure 36 shows an alternative design of a retracting trocar. Under this design, a bar located at the proximal end of the trocar shaft prevents retraction of the trocar into the sleeve. when the tip of the trocar penetrates the abdominal wall, a signal is sent, energizing a solenoid, which then moves the bar, allowing the end of the trocar shaft to align with a hole in the bar, permitting retraction of the trocar into the sleeve.

coded list of the elements of the invention, with Defendants' Exhibits 214 and 220, which are color coded versions of Choi's sketches.

111. The retracting trocars depicted in Choi's sketches differ from the instruments shown in Figures 34, 35 and 36 of the patent in a number of ways.[19] Nevertheless, Figures 34 and 35 resemble the trocar that appears in Defendants' Exhibit 48 at Y1163 and Figure 36 resembles the trocar that appears in Defendants' Exhibit 31 at Y964.

112. Professor Schlecht testified that Choi's drawings show an organized approach to teaching the invention, which indicates that Choi was teaching Yoon. Tr. 889-899 (discussing the drawings contained in DX 31) and 899-908 (discussing the Drawings contained in DX 48) He further testified that some of the drawings deal with sophisticated concepts only an electrical engineer would understand. Tr. 893-895. Consistent with Professor Schlecht's opinion, which I credit, I find that the drawings reflect an effort by Choi to teach Yoon how a retracting trocar could be made to work using sensors and a plunger or bar controlled by a solenoid.

113. Though Choi's drawings tend to corroborate his testimony that he conceived of all the elements of the retracting trocar, I am not persuaded that he did so. The retracting trocar

---

[19] The sketch contained in Defendants' Exhibit 48 at Y1163 has no inner cylinder for receiving the retracting trocar shaft, shows a spring attached to both the trocar shaft and sleeve, shows a plunger on the proximal side of the spring and has a shaft of uniform diameter. Similarly, the drawing in Defendants' Exhibit 31 at Y964 also lacks an inner cylinder.

sketches are not technical in nature, embodying concepts only an electrical engineer would understand. They are rough sketches that outline the elements of the retracting trocar. Yoon might well have described one or more elements to Choi, prompting him to include them in the sketches.

114. Other credible evidence indicates that Yoon conceived of at least some elements of the retracting trocar independently of Choi:

a. Konigsberg's deposition testimony shows that Yoon conceived of using sensors in the cutting tip of a trocar before he met Choi.

b. PX 491 shows that Yoon conceived of using sensors in connection with a retractable trocar.

c. U.S. Patent No. 3,911,923 ('923 patent) (PX 255), entitled "Occlusion Ring and Method and Device for its Application," which was issued to Yoon in 1975, establishes that Yoon conceived of using a tension spring in conjunction with a lock to create a retractable tubular structure before he met Choi.

115. in light of Yoon's longstanding interest in developing a trocar that would use sensors and a retractable element, Choi's testimony that he alone conceived of the retracting trocar is implausible. Moreover, his testimony is at least somewhat inconsistent with testimony he gave when he first appeared in the case. At a deposition in October 1992, Choi was asked whether Yoon mentioned the concept of putting sensors in the trocar tip before Choi mentioned it to him. Choi replied: "I don't think so, but I don't know, sir. I cannot recall

exact [sic]. It's been 12 years, 10 years." Choi Dep. Tr. 394-95. Choi was also asked whether Yoon had worked on a retractable trocar prior to their work together. Choi answered: "I don't know, sir."

116. After careful consideration of all the evidence, I find that U.S. Surgical and Choi have failed to prove by clear and convincing evidence that Choi conceived of all the elements of the retracting trocar independently of Yoon. However, I am convinced that it was Choi, not Yoon, who conceived of using a plunger or bar to hold the retractable trocar in an extended position and prevent it from being pulled into the sleeve by the spring.

117. Professor Schlecht testified that, in his opinion, based on Choi's drawings and testimony, it was Choi who conceived of this particular element of claim 47. Tr. 910-911. I credit his opinion on this point.

118. The '923 patent covering Yoon's ring applicator shows that Yoon knew how to use a lock in conjunction with a spring to create a retractable device. See PX 255, Sheet 3, Figures 7 and 8. But the locking mechanism of the ring applicator, which is operated mechanically, is not at all like the locking mechanism of the retracting trocar, which relies on sensors and a solenoid to release the plunger or bar.[20]

---

[20] Yoon testified that he knew the "locking portion" of the retracting trocar could be controlled by a solenoid before he met Choi but that he forgot about it until he learned it again from Choi. Tr. 1591. I do not believe that Yoon developed this concept himself or learned of it from others before meeting Choi.

119. Yoon did not have a complete conception of the retracting trocar disclosed in the patent, including use of a plunger or bar to maintain the trocar in an extended position, prior to meeting Choi. It was Choi, not Yoon, who conceived of that element of the retracting trocar.

120. Accordingly, I find that U.S. Surgical and Choi have proven by clear and convincing evidence that Choi is a coinventor of claim 47.

III. CONCLUSIONS OF LAW

1. A patent is valid only if all true inventors are named. See Jamesbury Corp. v. United States, 518 F.2d 1384, 1395 (Ct-Cl. 1975) (inclusion of more or less than true inventors renders patent void). Amax Fly Ash Corp. v. United States, 514 F.2d 1041, 1050 (Ct.Cl. 1975) (same).

2. 35 U.S.C. § 256 provides for correction of misjoinder or nonjoinder of inventors in issued patents. Correction is liberally allowed if the error occurred without deceptive intent. See Coleman v. Dines, 754 F. 2d 353 (Fed. Cir. 1985); A.F. Stoddard & Co., Ltd. v. Damn, 564 F.2d 556, 564, 566 (D.C. Cir. 1977).

3. An issued patent is presumed to be valid. 35 U.S.C. § 282. The presumption of validity extends to the patent's inventorship.

4. The presumption of proper inventorship is based on the "temptation for honest witnesses, who have worked years with a patentee to implement his ideas, to forget whose ideas they were." Acme Highway Products Corp. v. D. S. Brown

Co., 431 F.2d 1074, 1083 (6th Cir. 1970) , cert. denied, 401 U.S. 956 (1971).

5. Correction of a patent will not be ordered over the objection of a named inventor except on the basis of clear and convincing evidence.

A. Choi's Testimony Regarding His inventive Contributions is Adequately Corroborated

6. Plaintiffs contend that Choi cannot obtain correction of the '773 patent because his testimony that he made an inventive contribution to the safety trocar project is not corroborated by independent evidence. A party seeking to prove conception may not rely solely on the oral testimony of the alleged inventor. Because conception is a mental act, some form of corroborating evidence -- i.e., evidence in addition to the inventor's oral testimony is required. See Burroughs Wellcome Co. v. Barr Lab., Inc., 40 F.3d 1223, 1228 (Fed. Cir 1994), cert. denied, 116 S.Ct. 771 (1996.); Price v. Symsek, 988 F.2d 1187, 1194-96 (Fed. Cir. 1993) (corroboration required to prove earlier date of conception); Maxwell v. K Mart Corp., 880 F. Supp. 1323, 1329-30 (D. Minn. 1995). If the alleged inventor's oral testimony is not corroborated, it cannot be credited. See AMP, Inc. v. Fujitsu Microelectronics Inc., 853 F.Supp. 808, 821-22 (M.D.Pa. 1994) (corroboration required to prove claim by alleged joint inventors that subject matter of certain claims was conception of just one inventor).[21]

---

[21] Plaintiffs also contend that the patent cannot be corrected because defendants have failed to prove derivation (i.e. that the subject matter claimed in the four claims of the patent: at issue in this case was derived by Yoon from Choi).

7. Whether an alleged inventor's oral testimony concerning conception is sufficiently corroborated by other evidence to be given independent weight is determined by a rule of reason analysis, which requires a "reasoned examination, analysis and evaluation of all pertinent evidence so that a sound determination of the credibility of the inventor's story may be reached." Hayhurst v. Rosen, No. CV-91-4496, 1992 WL 123178, at *10 (E.D.N.Y. May 18, 1992) (citation omitted); see also Price, 988 F.2d at 1195.

8. Written descriptions, drawings or models are corroborating evidence, when there is sufficient proof that they existed at the pertinent time. See, e.g., Price, 988 F.2d at 1195-96; Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1376-78 (Fed. Cir. 1986), cert. denied, 480 U.S. 947 (1987). It is undisputed that Choi's drawings were created in 1980 and 1981, and transmitted to Yoon and his patent attorneys, before the application for the '773 patent was filed.

9. Plaintiffs contend that Choi's sketches cannot be considered as corroborating evidence because there is no independent evidence that the sketches reflect Choi's conceptions rather than Yoon's. In a coinventorship case like this one, where it is undisputed that the person claiming to be a coinventor prepared sketches resembling figures of the patent and the named inventor says that the other simply drew what he was told to draw, the trier of fact should be able to assess the sketches in light of all the evidence to determine whose

---

This argument, which was raised for the first time after the hearing, is untenable. Defendants do not claim that Choi is the sole inventor of the subject matter of these four claims. They claim he is a coinventor.

conceptions they reflect. If the trier is convinced that the sketches reflect an inventive contribution by the person who prepared them, and rejects as unworthy of belief the named inventor's assertion that the other merely drew what he was told to draw, the trier should be able to consider the documents as corroborating evidence. Otherwise, the named inventor could prevail simply by asserting that the other drew what he was told to draw, regardless of how incredible that assertion might be.

10. Oral testimony by someone other than the alleged inventor may provide corroboration of the alleged inventor's testimony. See Kardulas v. Florida Mach. Prods. Co., 438 F.2d 1118, 1121 (5th Cir. 1971). Because the purpose of corroboration is to have a means of evaluating the truthfulness of the alleged inventor's testimony, persuasive corroborating evidence that someone is a joint inventor -- when this assertion is being contested by the named inventor -- is the testimony of the alleged joint inventor's adversary. Cf. Hayhurst, 1992 WL 123178, at *11 (on motion for summary judgment, court recognized that corroboration that unnamed inventor was the actual inventor could be found in the named inventor's testimony about the unnamed inventor's contributions). Thus, Yoon's testimony concerning his work with Choi on the safety trocar project is additional corroborating evidence.

11. An alleged inventor's oral testimony can be corroborated by circumstantial evidence. Choi's testimony that he made inventive contributions to the safety trocar project is corroborated by the following circumstantial evidence: Yoon's need for a person with expertise in electronics; Choi's background in electronics; Yoon's proposal that he and Choi should work together developing new products, including safety trocars; the informal business relationship between Yoon and

Choi; the length of time Yoon and Choi worked together on the project; the fact that Choi was not paid for his work; the similarity between Choi's sketches and the figures of the patent; and Choi's letter to Yoon of January 1982, in which Choi stated that he could no longer be involved as a "member" of Yoon's "business."

12. After a "reasoned examination, analysis and evaluation of all pertinent evidence," I conclude that Choi's testimony about his inventive contributions to the '773 Patent is sufficiently corroborated to be given independent weight. Hayhurst, 1992 WL 123178, at *10, see also Price, 988 F.2d at 1195.

B. Choi is a Coinventor of The '773 Patent

13. A patented invention can be the work of two or more inventors, who are considered "joint" inventors. See U.S.C. § 116.

14. An inventor is one who contributes to the final conception of that which is covered by the patent claims. See Rodgard Corp. v. Miner Enters. Inc., 12 U.S.P.Q.2d 1353, 1356 (W.D.N.Y. 1989). A sole inventor is one who is solely responsible for conception of the invention. In contrast, if two or more persons contribute jointly to the conception of the invention, they are joint inventors.

15. Conception is "the formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice." Hybritech Inc., 802 F.2d at 1376 (citations omitted); see also Burroughs, 40 F.3d at 1228.

16. For conception, the inventor must have "a specific, settled idea, a particular solution to the problem at hand, not just a general goal or research plan he hopes to pursue." Burroughs, 40 F.3d at 1228. In other words, an inventor must (1) not only have an "idea of the structure of the [invention]," (2) but also must possess "an operative method of making it." Oka v. Youssefyeh, 849 F.2d 581, 583 (Fed. Cir. 1988).

17. "An entrepreneur's request to another to create a product that will fulfill a certain function is not conception -- even if the entrepreneur supplies continuous input on the acceptability of offered products." Hayhurst, 1992 WL 123178, at *11 (citing Morgan v. Hirsch, 728 F.2d 1449, 1452 (Fed. Cir. 1984)) .

18. Conception is complete only when the idea is so clearly defined in the inventor's mind that one with ordinary skill in the art could construct the invention and reduce it to practice without extensive research or experimentation. See Burroughs, 40 F.3d at 1228.

19. A joint invention is "the product of the collaboration of the inventive endeavors of two or more persons working together toward the same end and producing an invention by their aggregate efforts." Monsanto Co. v. Kamp, 269 F. Supp. 818, 824 (D.D.C. 1967); see also Burroughs, 40 F.3d at 1227 ("A joint invention is the product of a collaboration between two or more persons working together to solve the problem addressed."); Kimberly-Clark Corp. v. Procter & Gamble Distrib. Co., 973 F.2d 911, 915-16 (Fed. Cir. 1992).

20. Each of the joint inventors need "not make the same type or amount of contribution." 35 U.S.C. § 116; see also Burroughs, 40 F.3d at 1227. "Each needs to perform but a part of the task if an invention emerges from all of the steps taken together." Monsanto, 269 F. Supp. at 824.

21. If a person makes a practical and concrete suggestion that contributes to the invention, he is considered a joint inventor. See Shields v. Halliburton, 493 F. Supp. 1376 (W.D. La. 1980), aff'd, 667 F.2d 1232 (5th Cir. 1982); see also Fina Technology Inc. v. Ewen, 857 F. Supp. 1151 (N.D. Tex. 1994), appeal dismissed mem. by, 41 F.3d 1519 and by 45 F.3d 442 (Fed. Cir. 1994)

22. Joint invention can exist even if "the major share of the inventive effort is accomplished by one joint inventor working alone prior to the collaboration." Shields, 667 F.2d at 1235. If the other contributes to the final conception of the invention, both are joint inventors. See id. at 1235; see also Burroughs, 40 F.3d at 1229, 1232.

23. If an inventor uses another's services to perfect an invention, and the other's work contributes to the conception of the invention, then the other is considered a joint inventor. See William R. Thropp & Sons Co. v. Delaski & Thropp Circular Woven Tire Co. , 226 F. 941, 947-49 (3d Cir. 1915) ; Rodgard Corp. 12 U.S.P.Q.2d at 1356.

24. If a prior invention of one inventor is modified as a result of the collaborative effort of joint inventors, the modified invention may become a joint invention. See General Motors Corp. v. Toyota Motor Co., 667 F.2d 504, 506-07 (6th Cir. 1981), cert. denied, 456 U.S. 937 (1982).

25. Each joint inventor is not required to "make a contribution to the subject matter of every claim of the patent.11 35 U.S.C. § 116; see also Smithkline Diagnostics, Inc. v. Helena Lab. Corp., 859 F.2d 878, 888 (Fed. Cir. 1988); United States Surgical Corp. v. Hospital Prods. Int'l Pty. Ltd., 701 F. Supp. 314, 340 (D. Conn. 1988). An inventive contribution to one claim is enough.

26. "[J]oint inventorship may be inferred from collaboration of effort to produce a complete and operative invention." In re Image Storage/Retrieval Sys. Inc., Misc. No. 92-0003, 1992 WL 25373, at *4 (E.D. Pa. Feb. 7, 1992) ; Rodgard Corp. 12 U.S.P.Q.2d at 1356.

27. "The more specific the conception of a putative inventor or co-inventor, in terms of structural details, or details of process steps, the more likely such a person is an inventor or co-inventor, other things being equal." Harris, Conceptual Specificity As A Factor In Determination Of Inventorship, 67 Journal of the Patent and Trademark Office Society 315, 333 (1985) (emphasis in original).

28. A person can attain the status of a coinventor by originating a specific design improvement that makes an invention operable. Jamesbury Corp., 518 F.2d at 1395-96.

29. Based on all the credible evidence presented by both sides, 1 conclude that Choi is a coinventor of the subject matter claimed in claims 33 and 47 of the '773 Patent.

C. Section 256 Authorizes Correction of the Patent

30. 35 U.S.C. § 246 provides:

> "Whenever through error a person is named in an issued patent as the inventor or through error an inventor is not named in an issued patent and such error arose without any deceptive intent on his part, the Commission may, on application of all the parties and assignees, with proof of the facts and such other requirements as may be imposed, issue a certificate correcting such error.
>
> "The error of omitting inventors or naming persons who are not inventors shall not invalidate the patent in which such error occurred if it can be corrected as provided in this section. The court before which such matter is called in question may order correction of the patent on notice and hearing of all parties concerned and the Commissioner shall issue a certificate accordingly.

31. U.S. Surgical and Choi allege that "Dr. Yoon erroneously swore that he was the sole inventor" of the '773 patent and that "the error in failing to name Mr. Choi as a coinventor was made without deceptive intent on the part of Mr. Choi." Am.Answer to Am.Compl. with Fourth Am.Countercls. at ¶¶ 23, 26. U.S. Surgical and Choi contend that these allegations satisfy the requirements of section 256 and provide a basis for correcting the patent to add Choi as a coinventor even if Yoon acted with deceptive intent.

32. The District Courts that have considered, whether section 256 permits correction of a patent as long as there was no deceptive intent on the part of the omitted inventor

have determined that the statute permits correction of a patent only if the error occurred without deceptive intent on the part of any true inventor. Stark v. Advanced Magnetics, Inc., 894 F.Supp. 555, 560 (D.Mass. 1995) (certifying issue to Federal Circuit pursuant to 28 U.S.C. § 1292(b)); permission to appeal granted, 79 F.3d 1165 (Fed. Cir. 1996).

33. The appropriate interpretation of section 256 does not have to be addressed in this case because I find that Choi was omitted from the patent without deceptive intent on the part of Yoon.

34. Yoon had a motive to omit Choi because, as the sole inventor named in the patent, he would not have to share the benefits of the patent with Choi. However, Yoon might well have had a good faith belief that Choi was not a coinventor for the following reasons:

a. The boundaries of joint inventorship are unclear even to legal experts. See W. Fritz Fasse, The Muddy Metaphysics of Joint Inventorship: Cleaning Up After the 1984 Amendments to 35 U.S.C. § 116, 5 Harv.L.J. & Tech. 153 (1992).

b. The claims of the patent are directed primarily at safety shielded trocars, which Choi does not claim to have invented.

c. Based on the evidence presented in this case, it appears that Choi's contribution to the patent was relatively minor compared to Yoon's. Viewed from Yoon's perspective, Choi's contribution might appear to be too insignificant to warrant designating him as a coinventor.

d. Mrs. Yoon's whiting-out of Choi's name on the circuit drawings that were delivered to Bushnell arguably permits the inference that the Yoons were trying to conceal Choi's name from Bushnell. However, Choi's name appears on other documents that were given to Bushnell and Bushnell recalls Yoon mentioning Choi's name. Yoon's disclosure of Choi's name to Bushnell undermines the inference that Yoon tried to deceive Bushnell by concealing Choi's name.

e. Yoon's disclosure of Choi's name to Bushnell put Bushnell on notice that Yoon worked with Choi on the safety trocar project. Bushnell could have inquired about Choi but did not do so.

f. There is no evidence that Yoon affirmatively misled Bushnell concerning Choi's role.

35. Yoon's conduct in connection with this litigation indicates that he does not take seriously the obligations of an oath. However, it does not necessarily follow that he intended to deceive the PTO when he swore that he was sole inventor of the subject matter of the patent.

36. Weighing all the evidence, I decline to find that Yoon omitted to name Choi as a coinventor with deceptive intent.

37. Accordingly, I conclude that section 256 permits correction of the patent to add Choi as a coinventor.

E. Choi Is Not Barred From Obtaining Relief

a. Laches

38. Section 256 does not limit the time during which the inventorship of an issued patent can be corrected by a court. See Advanced Cardiovascular Systems, Inc. v. SciMed Life Systems, Inc., 988 F.2d 1157, 1162 (Fed. Cir. 1993). "Section 256 thus serves the public policy of preserving property rights from avoidable forfeiture. See Henderson v. Carbondale Coal Coke Co., 140 U.S. 25, 33 11 S.Ct. 691, 694, 35 L.Ed. 332 (1891)('[F]orfeitures are never favored. Equity always leans against them, and only decrees in their favor when there is full, clear and strict proof of a legal right thereto.')." Stark v. Advanced Magnetics, Inc., 29 F.3d 1570, 1573 (Fed. Cir. 1994).

39. Though section 256 contains no time limit, lack of diligence on the part of an omitted inventor may preclude him from obtaining correction of a patent in some circumstances. Stark, 29 F.3d at 1575 (summary judgment that claim for correction of patent barred due to lack of diligence reversed).

40. Whether diligent action is required of an omitted inventor and, if so, whether he should be barred from obtaining relief for failing to act with appropriate diligence depends on all the facts and equities of each case, including the omitted inventor's reason for not filing suit at an earlier time, the length of the delay in filing suit, the nature and extent of any unfair prejudice the named inventor would suffer if the suit were allowed to proceed, and whether the delay is attributable to any conduct on the part of the named inventor.

41. If undue delay and unfair prejudice are established, the omitted inventor is not necessarily barred from obtaining relief. A.C. Aukerman Co. v. R.L. Chaides Constr. Co., 960 F.2d 1020, 1036 (Fed. Cir. 1992) (en banc).

42. The informal partnership arrangement between Yoon and Choi and the trust Choi placed in Yoon obligated Yoon to tell Choi in mid-1981 that he had retained Bushnell to apply for a patent in connection with the safety trocar project. Yoon's failure to tell Choi about his retention of Bushnell caused Choi to reasonably believe that no such action had been taken. If Yoon had told Choi about his retention of Bushnell and their intent to file a patent application, it is highly unlikely that Choi would have written the letter he sent to Yoon in January 1982.

43. Yoon never told Choi about the patent application. Yoon's failure to tell Choi about the application deprived Choi of an opportunity to assert his coinventorship claim before the application was filed and thereafter before the patent was issued.

44. Given the terms of their informal partnership arrangement, and the trust Choi placed in Yoon as evidenced by his January 1982 letter, Yoon had a duty to tell Choi if a patent ever issued containing claims encompassing Choi's work. Yoon never fulfilled that duty to Choi. Had Yoon told Choi about the '773 patent and provided him with a copy of it, as he should have done, Choi would have been obliged to act promptly if he wanted to assert a coinventorship claim. Yoon's failure to tell Choi weighs heavily against Yoon now.

45. Yoon contends that Choi's brief, fortuitous encounter with Glover put him on notice of the issuance of a patent to Yoon relating to safety trocars. Yoon's statement that Glover was helping him negotiate a license for a patent relating to safety trocars did not serve to put Choi on notice that Yoon had obtained a patent covering the claims at issue in this case. Whatever comments Yoon might have made in introducing

Glover that day, they fell far short of fulfilling Yoon's duty of disclosure to Choi.

46. Yoon's claim of unfair prejudice is based primarily on his licensing agreement with Ethicon, which he says he would not have signed had he known the inventorship of the '773 patent might be disputed by Choi. The Glover encounter was in 1987 or 1988. Yoon entered into the licensing agreement with Ethicon in June 1988. On this record, the Glover encounter preceded the licensing agreement by not more than approximately one year and perhaps by as little as a few months. Such a brief period of delay is insufficient to invoke the bar of laches except in compelling circumstances not present here.

47. On learning about the '773 patent, Choi called Yoon promptly to discuss the matter. The motion to correct the patent was filed thereafter without unreasonable delay.

48. Weighing all the facts and equities of this unusual case, I conclude that Choi did not treat Yoon unfairly by failing to seek correction of the patent at an earlier time. Accordingly, I conclude that he is not barred from obtaining correction of the patent.

b. Equitable Estoppel

49. Yoon contends that Choi is estopped from seeking correction of the patent.

50. Equitable estoppel requires proof that 11 [t] he actor, who usually must have knowledge of the true facts,

communicated something in a misleading way." A.C. Aukerman, 960 F.2d at 1041.

51. Yoon has failed to prove that Choi, with knowledge of the true facts relating to the '773 patent, misled Yoon into believing that he would not assert an interest in the patent as a coinventor.

52. Accordingly, Choi is not estopped from obtaining correction of the patent.

IV. CONCLUSION

For all the foregoing reasons, the motion to correct the '773 patent to add Choi as a coinventor is hereby granted.

It is so ordered.

Dated at Hartford, Connecticut this 9th day of September, 1996 .

/S/

Robert N. Chatigny
United States District Judge

APPROVED. It is so ordered. /s/
Jose A. Cabranes, C.U.S.D.J.
New Haven, CT 6/23/93

UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT

----------x

ETHICON, INC. and INBAE YOON, M.D.,	: Civil Action No. B 89-386 (JAC)
Plaintiffs,	:
-against-	: STIPULATION AND ORDER GRANTING
UNITED STATES SURGICAL CORPORATION,	: YOUNG JAE CHOI LEAVE TO INTERVENE AS A
Defendants.	: PARTY DEFENDANT

----------x

WHEREAS, plaintiffs Ethicon, Inc. and Inbae Yoon, M.D. ("Plaintiffs") allege that Dr. Yoon is the inventor and owner of U.S. Patent 4,535,773 (the "'773 Patent") and that defendant United States Surgical Corporation ("USSC") is infringing the '773 Patent;

WHEREAS, Mr. Young Jae Choi ("Choi") claims that he is an inventor of, and therefore has an ownership interest in, the '773 Patent;

WHEREAS, USSC denies it is infringing the '773 Patent, and USSC asserts that Choi has licensed USSC to practice the inventions claimed in the '773 Patent pursuant to the rights claimed by Choi in such patent;

WHEREAS, Plaintiff and USSC have no objection to the intervention of Choi as a party defendant in this case;

NOW, THEREFORE, IT IS HEREBY STIPULATED AND AGREED by the undersigned parties and Choi, through their respective counsel:

1. that Choi be granted leave to intervene in this action as a party defendant and the caption shall be amended accordingly;

2. that Choi shall cause his answer to be served and filed within fifteen days of the entry of this Order;

3. that Choi shall adopt Defendant's Motion To Correct The Inventorship Of United States Patent No. 4,535,773 And To Dismiss This Action filed on October 15, 1992; that said motion shall be deemed as submitted as of the date of entry of this Order; and that no further briefing on this motion shall be required by any party or Choi;

4. that Choi shall be added as a party to the Stipulation and Order Governing Confidentiality of Documents and Information dated March 20, 1990.

The undersigned counsel hereby stipulate to the entry of this Order by the Court.

PATTERSON, BELKNAP, WEBB & TYLER
30 Rockefeller Plaza
New York, NY 10112
(212) 698-2500

By:/s/
A Member of the Firm

Dion W. Moore
WILLIAMS, COONEY & SHEEHY
One Lafayette Circle
Bridgeport, CT 06604
(203) 331-0888

By:/s/
A Member of the Firm

Attorneys for Plaintiffs Ethicon, Inc. and Inbae Yoon, M.D.

DEWEYBALLANTINE
1301 Avenue of the Americas
New York, NY 10019
(212) 259-8000

By:/s/
A Member of the Firm

Jacob D. Zeldes
ZELDES, NEEDLE & COOPER
Professional Corporation
Post Office Box 1740
1000 Lafayette Blvd.
Bridgeport, CT 06601
(203) 333-9441

By:/s/
A Member of the Firm

Attorneys for Defendant United States Surgical Corp. and Intervenor-Defendant Young Jae Choi

321153.1

IT IS SO ORDERED:
Dated this ____ day of June, 1993.

_____
José A. Cabranes, U.S.D.J.